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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA, OAKLAND DIVISION

IN RE: LITHIUM ION BATTERIES
ANTITRUST LITIGATION

Case No.: 13-MD-02420 (YGR)

MDL No.: 2420

CLASS ACTION

This Document Relates To:
ALL DIRECT PURCHASER ACTIONS

**DIRECT PURCHASER PLAINTIFFS'
CONSOLIDATED AMENDED
COMPLAINT**

DEMAND FOR JURY TRIAL

TABLE OF CONTENTS

1			
2	I.	OVERVIEW.....	1
3	II.	JURISDICTION AND VENUE.....	5
4	III.	PARTIES.....	6
5	IV.	AGENTS AND CO-CONSPIRATORS.....	14
6	V.	TRADE AND COMMERCE.....	15
7	VI.	FACTUAL ALLEGATIONS.....	17
8	A.	Rechargeable Batteries.....	17
9	B.	Lithium Ion Batteries.....	18
10	C.	Defendants Colluded to Keep the Price of Lithium Ion Batteries Elevated During the Class Period.....	26
11			
12	1.	The Korean Defendants' entry into the market undermined Japanese dominance and threatened to cause prices to drop.....	27
13	2.	Defendants engaged in collusive communications regarding supply, customer information, and market movements.....	28
14			
15	3.	As the conspiracy evolved, Defendants fixed prices for specific products, refused to compete on price, and restricted Lithium Ion Battery supply.....	30
16			
17	4.	A rise in the price of raw materials in early 2007 gave Defendants further cover to initiate another coordinated price increase.....	34
18	5.	Defendants continued to maintain artificial prices in 2008 by using the rise of raw material prices as a pretext.....	37
19			
20	6.	The conspiracy continued through 2008, even after the price of raw materials began to fall.....	39
21	7.	Notwithstanding the worldwide economic downturn in late 2008, Defendants continued to manipulate Lithium Ion Battery prices.....	40
22			
23	D.	The Price Movements of Lithium Ion Batteries During the Class Period Are Consistent With Collusion, Not Competition.....	42
24	E.	Defendants' Capacity Utilization During the Class Period is Consistent with Collusion, Not Competition.....	46
25			
26	F.	The Structure and Characteristics of the Lithium Ion Battery Market, Together with Other Factors, Render the Conspiracy Economically Plausible.....	49
27			
28	1.	The Lithium Ion Batteries market has high barriers to entry.....	49

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

2.	The market for Lithium Ion Batteries is concentrated	50
3.	Government investigators are targeting certain Defendants in connection with fixing the price of rechargeable batteries.....	51
4.	Defendants have a history of colluding to fix prices for critical components of consumer electronics	52
5.	Trade associations and other common forums facilitated Defendants' collusion.....	54
VII.	CLASS ACTION ALLEGATIONS.....	55
VIII.	ANTITRUST INJURY	57
IX.	ACTIVE CONCEALMENT	58
X.	VIOLATION OF SECTION 1 OF THE SHERMAN ACT	61
XI.	REQUEST FOR RELIEF.....	62

1 Plaintiffs Automation Engineering LLC, Charles Carte, Alfred H. Siegel, not individually,
 2 but acting solely in his capacity as the Liquidating Trustee of Circuit City Stores, Inc. Liquidating
 3 Trust, First Choice Marketing, Inc., James O’Neil, Alfred T. Giuliano, as the Chapter 7 Trustee of
 4 Ritz Camera & Image, LLC, The Stereo Shop, Univisions-Crimson Holding, Inc., and Terri
 5 Walner, individually and on behalf of a Class of all those similarly situated, bring this action for
 6 damages and injunctive relief under the antitrust laws of the United States against Defendants
 7 named herein, and allege, based upon the investigation of counsel and on information and belief,
 8 as follows:

9 **I. OVERVIEW**

10 1. Defendants,¹ the world’s largest suppliers of Lithium Ion Batteries (defined below)
 11 globally and in the United States, engaged in a massive conspiracy to fix, raise, stabilize, and
 12 maintain the prices of Lithium Ion Batteries from at least as early as January 1, 2000 through at
 13 least May 31, 2011 (the “Class Period”). The conspiracy also artificially raised the prices of
 14 Lithium Ion Battery Products (also defined below).

15 2. “Lithium Ion Batteries” or “Batteries,” as used in this Complaint, are cylindrical,
 16 prismatic, or polymer batteries that are rechargeable and use lithium ion technology. Lithium Ion
 17 Batteries are an important source of portable energy for many products, such as notebook
 18 computers, cellular phones, digital cameras, camcorders, power tools, and other devices.

19 3. “Lithium Ion Battery Cells,” as used in this Complaint, are the main components of
 20 Lithium Ion Batteries. As explained in more detail below, a cell includes the cathode, anode, and
 21 electrolyte. Individual or multiple cells are assembled or “packed” inside an enclosure. In some
 22 cases, certain protection circuitry is also added inside the enclosure. The assembled product,
 23 which is referred to as the “battery,” “pack,” or “module,” is placed inside a device, including into

24
 25 ¹ LG Chem, Ltd., LG Chem America, Inc., Samsung SDI Co., Ltd., Samsung SDI America, Inc.,
 26 Panasonic Corporation, Panasonic Corporation of North America, Sanyo Electric Co., Ltd., Sanyo
 27 North America Corporation, Sony Corporation, Sony Energy Devices Corporation, Sony
 28 Electronics, Inc., Hitachi Maxell, Ltd., Maxell Corporation of America, GS Yuasa Corporation,
 NEC Corporation, NEC Tokin Corporation, Toshiba Corporation and Toshiba America Electronic
 Components, Inc. (collectively “Defendants”).

1 Lithium Ion Battery Products, to supply power. The assembly of battery cells into battery packs
2 does not change the essential character of the cells.² Packing simply allows the cells to operate as
3 a battery for use in a Lithium Ion Battery Product. In general, cells have no practical use on their
4 own and, with few exceptions, cells and batteries are essentially the same from an economic
5 standpoint so that a price fix on the cells is a price fix on the batteries.

6 4. "Lithium Ion Battery Products," as used in this Complaint, are products
7 manufactured, marketed, and/or sold by Defendants, their divisions, subsidiaries or affiliates, or
8 their co-conspirators that contain one or more Lithium Ion Battery Cells manufactured by
9 Defendants or their co-conspirators. Lithium Ion Battery Products include notebook computers,
10 cellular (mobile) phones, digital cameras, camcorders, power tools, and other devices as the
11 evidence may show.

12 5. During the Class Period, Defendants manufactured, marketed, and/or sold Lithium
13 Ion Batteries and/or Lithium Ion Battery Products throughout the United States and the world.
14 Defendants collectively controlled between 73% and 95% of the worldwide market for Lithium
15 Ion Batteries during the Class Period. The manufacture and sale of Lithium Ion Batteries was
16 approximately a \$9.3 billion industry as of 2011 and is predicted to continue growing.

17 6. Plaintiffs and members of the Class purchased Lithium Ion Batteries and Lithium
18 Ion Battery Products from Defendants, their divisions, subsidiaries or affiliates, or their co-
19 conspirators during the Class Period.

20 7. As alleged in more detail below, and in violation of the United States antitrust laws,
21 Defendants took various acts in furtherance of their conspiracy including engaging in continuous
22 communications about confidential business matters that enabled them to set prices collusively,
23 reaching customer and product-specific agreements on price, setting price targets and bottom
24 prices, coordinating output restrictions, implementing price formulas tied to battery inputs, and
25

26
27 ² United States International Trade Commission Rulings And Harmonized Tariff Schedule, HQ
563045 (<http://www.faq.s.org/rulings/rulings2004HQ563045.html>).

1 devising mechanisms to nullify competition in procurements by their customers, amongst other
2 conduct.

3 8. Defendants initially began meeting with each other in or around 2000 with a
4 common goal of cooperating to avoid price competition. At these meetings, Defendants discussed
5 confidential and competitively sensitive information regarding, among other things, supply and
6 demand, market trends, capacity, sales forecasts, and pricing for Lithium Ion Batteries. These
7 semi-annual meetings typically occurred in February/March and July/August and lasted several
8 hours. Defendants also participated in other meetings, telephone calls, and email exchanges,
9 where they reached agreements on pricing and market allocations. Examples of some such
10 meetings occurred, among others, on March 12–16, 2002 (various meetings involving Samsung,
11 Sony, Hitachi Maxell, and Panasonic in Japan); July 28–30, 2004 (various meetings involving
12 Sanyo, NEC, Panasonic, Hitachi Maxell and Samsung); February 2006 (meetings involving LG
13 and Samsung); and July 17–19, 2007 (various meetings involving NEC, Samsung, Sanyo, Sony,
14 and Panasonic in Japan). These meetings continued until May 2011.

15 9. Grand jury documents, produced by certain Defendants in response to criminal
16 subpoenas from the Antitrust Division of the United States Department of Justice (“DOJ”) in
17 connection with its investigation into the Lithium Ion Batteries market, reveal evidence of
18 Defendants’ regular, extensive communications and agreements. For example:

- 19 • In March 2004, in a document entitled “President Minutes,” LG summarizes its
20 agreement to raise prices with Sony, as well as the agreement of other Defendants:
21 “Sony plans to raise customer prices as said in Press release on Feb. 24. . . . Sanyo also
22 announced price hikes to customers and MBI also plans to do so. Afterwards, we
23 received the opinions of NEC/Hitachi Maxell that they would raise prices as well. . . .
24 We believe that if LG Chem and [Samsung] cooperated in these moves, the growth of
25 the Li-Ion battery industry is likely to go in the right direction.”
- 26 • On June 30, 2004, Sony committed to avoiding price cuts in a meeting with Samsung.
27 The President of Sony, remarking on Sony’s close relationship with Samsung, stated he
28 was “[g]lad that [Samsung] and Sony have been competitors, but also [have] been able
to cooperate with each other at the same times as entities participating in the same
business,” and that he hoped that “such a relationship would continue.”
- On August 9, 2004, in a meeting between LG and Sony, LG stated its willingness to
actively participate in price cooperation; LG “proposed price cooperation to defend

1 prices and to protect the industry, so mentioned that [LG] is also willing to cooperate
2 through active participation.”

- 3 • In February 2005, Sanyo, Samsung, MBI (Panasonic), GS Soft Energy, NEC and
4 Hitachi Maxell agreed to refrain from adding new product lines to rein in supply and
5 stabilize prices.
- 6 • On July 26, 2005, Samsung agreed to set prices for cylindrical batteries at ranges that
7 LG proposed. The parties also “[p]roposed to minimize damages caused by
8 unnecessary competition in dealing with customers by communicating with each other
9 in the future.”
- 10 • On October 26, 2005, Panasonic and Samsung agreed to avoid lowering Lithium Ion
11 Battery prices.
- 12 • A March 2007 Samsung document entitled “Summary of telephone call with Company
13 P[anasonic]” stated the following: “Request for price increase staring [sic] this week”;
14 “Increase (Proposal) Increase: Start 10~13% and hope to end with 8~10%”; “Time to
15 apply the increase: starting 4/1”; “Other company trend - Sanyo: hopes for 8~10% -
16 Sony: about 10% (will end with less than 10% since starting with 10%)”.
- 17 • Notes from a round of meetings in March 2007 state that “[e]very company showed a
18 keen sensitivity to increasing profitability[.] Especially Sanyo and Matsushita
19 [Panasonic] have strong interest in achieving profitability in lithium ion business due to
20 deteriorating profitability in nickel-hydrate battery.”
- 21 • A February 8, 2011 LG email confirms that Samsung “consented to nullification of
22 [Hewlett-Packard’s] e-auction, and said that the Bottom [price] discussed between the
23 two companies is \$16.”

24 10. Defendants thus participated in a combination and conspiracy to suppress and
25 eliminate competition in the market for Lithium Ion Batteries by agreeing to fix, raise, stabilize,
26 and maintain the prices of Lithium Ion Batteries in the United States. Defendants’ combination
27 and conspiracy constituted an unreasonable restraint of interstate and foreign trade and commerce
28 in violation of the Sherman Act, 15 U.S.C. § 1.

11. Defendants’ anticompetitive conduct impacted prices for Lithium Ion Batteries and
Lithium Ion Battery Products throughout the United States. As a result of Defendants’ conduct,

1 Plaintiffs and the Class paid inflated prices for Lithium Ion Batteries and Lithium Ion Battery
2 Products during the Class Period and have suffered antitrust injury to their business or property.³

3 **II. JURISDICTION AND VENUE**

4 12. Plaintiffs bring this action under Sections 4 and 16 of the Clayton Act, 15 U.S.C.
5 §§ 15 and 26, to recover treble damages and the costs of this suit, including reasonable attorneys'
6 fees, against Defendants for the injuries Plaintiffs and members of the Class sustained by virtue of
7 Defendants' violations of Section 1 of the Sherman Act, 15 U.S.C. § 1, and to enjoin further
8 violations.

9 13. This Court has jurisdiction over the subject matter of this action pursuant to Section
10 16 of the Clayton Act (15 U.S.C. § 26), Section 1 of the Sherman Act (15 U.S.C. § 1), and Title
11 28, United States Code, Sections 1331 and 1337.

12 14. Venue is proper in this District pursuant to Section 12 of the Clayton Act (15
13 U.S.C. § 22), and 28 U.S.C. §§ 1391 (b), (c), and (d), because a substantial part of the events
14 giving rise to Plaintiffs' claims occurred in this District, a substantial portion of the affected
15 interstate trade and commerce discussed below has been carried out in this District, and one or
16 more Defendants reside, are licensed to do business in, are doing business in, had agents in, or are
17 found or transact business in this District. The Judicial Panel on Multidistrict Litigation
18 transferred this action to this District on February 6, 2013 (Dkt. No. 1).

19 15. This Court has *in personam* jurisdiction over each Defendant because each
20 Defendant, either directly or through the ownership and/or control of its United States
21 subsidiaries: (a) transacted business in the United States, including in this District; (b) sold or
22 marketed substantial quantities of Lithium Ion Batteries throughout the United States, including in
23 this District; (c) had substantial aggregate contacts with the United States as a whole, including in
24

25
26 ³ For clarity, Plaintiffs allege that Defendants conspired to fix, raise, stabilize, and maintain the
27 price of Lithium Ion Batteries, not Lithium Ion Battery Products; however, the effect of the
28 conspiracy was to raise prices of both Lithium Ion Batteries and Lithium Ion Battery Products paid
by Plaintiffs and members of the Class.

1 this District; (d) was engaged in a price-fixing conspiracy that had an effect on commerce in the
 2 United States and this District; or (e) purposefully availed itself of the laws of the United States.

3 **III. PARTIES**

4 **A. Plaintiffs**

5 16. Plaintiff Automation Engineering LLC (“Automation”) is a Kansas limited
 6 liability company with its principal place of business in Kansas. During the Class Period,
 7 Automation purchased Lithium Ion Batteries from one or more of the named Defendants, their
 8 divisions, subsidiaries or affiliates, or their co-conspirators, and suffered injury as a result of the
 9 unlawful conduct alleged herein.

10 17. Plaintiff Charles Carte is a resident of Nevada. During the Class Period, Mr. Carte
 11 purchased a Lithium Ion Battery from one of the named Defendants, its divisions, subsidiaries or
 12 affiliates, or its co-conspirators, and suffered injury as a result of the unlawful conduct alleged
 13 herein.

14 18. Plaintiff Alfred H. Siegel, not individually, but acting solely in his capacity as a
 15 trustee, is the Liquidating Trustee of Circuit City Stores, Inc. Liquidating Trust (“the Circuit City
 16 Trust”). The Circuit City Trust was established on or around November 1, 2010 in connection
 17 with the bankruptcy proceedings of Circuit City Stores, Inc. and its affiliates in United States
 18 Bankruptcy Court, Eastern District of Virginia (Case No. 08-35653). Pursuant to the Second
 19 Amended Joint Plan of Liquidation of Circuit City Stores, Inc. and Its Affiliated Debtors and
 20 Debtors in Possession and Its Official Committee of Creditors Holding General Unsecured Claims
 21 (Dkt. No. 8252), and the Circuit City Stores, Inc. Liquidating Trust Agreement (Dkt. No. 8864),
 22 the Liquidating Trustee has the authority to pursue claims on behalf of the Circuit City Trust for
 23 the benefit of its beneficiaries. At all times relevant hereto, Circuit City Stores, Inc. (“Circuit
 24 City”) was incorporated in Virginia and had its principal place of business in Richmond, Virginia.
 25 During the Class Period, Circuit City purchased Lithium Ion Batteries and Lithium Ion Battery
 26 Products from one or more of the named Defendants, their divisions, subsidiaries or affiliates, or
 27 their co-conspirators, and suffered injury as a result of the unlawful conduct alleged herein.

1 19. Plaintiff First Choice Marketing, Inc. (“First Choice”) is a Washington corporation
2 with its principal place of business in Seattle, Washington. During the Class Period, First Choice
3 purchased Lithium Ion Batteries and Lithium Ion Battery Products from one or more of the named
4 Defendants, their divisions, subsidiaries or affiliates, or their co-conspirators, and suffered injury
5 as a result of the unlawful conduct alleged herein.

6 20. Plaintiff James O’Neil is a resident of California. During the Class Period, Mr.
7 O’Neil purchased a Lithium Ion Battery Product from one of the named Defendants, its divisions,
8 subsidiaries or affiliates, or its co-conspirators, and suffered injury as a result of the unlawful
9 conduct alleged herein.

10 21. Plaintiff Alfred T. Giuliano is the Chapter 7 Trustee of Ritz Camera & Image, LLC.
11 On January 15, 2013, Ritz Camera’s Chapter 11 cases were converted to Chapter 7 cases in
12 connection with bankruptcy proceedings in United States Bankruptcy Court for the District of
13 Delaware (*In re Ritz Camera & Image, LLC*, D. Del. Bankr. No. 1:12-bk-11868-KG, Dkt. No.
14 770). On January 16, 2013, Alfred T. Giuliano was notified of his appointment as Chapter 7
15 Trustee (Dkt. No. 772). On June 25, 2013, Chief United States Bankruptcy Judge Kevin Gross
16 authorized the Trustee to employ and retain Co-Special Antitrust Counsel to pursue the claims
17 herein (Dkt. 982). At all times relevant hereto, Ritz Camera & Image, LLC (“RCI”) was a
18 Delaware limited liability company with its principal place of business in Beltsville, Maryland. It
19 was the successor in interest to Ritz Camera Centers, Inc. (“RCC”). RCI and RCC are collectively
20 referred to as “Ritz Camera.” During the Class Period, Ritz Camera purchased Lithium Ion
21 Batteries and Lithium Ion Battery Products from one or more of the named Defendants, their
22 divisions, subsidiaries or affiliates, or their co-conspirators, and suffered injury as a result of the
23 unlawful conduct alleged herein.

24 22. Plaintiff The Stereo Shop is a sole proprietorship with its principal place of
25 business in Minot, North Dakota. During the Class Period, The Stereo Shop purchased both
26 Lithium Ion Batteries and Lithium Ion Battery Products from one or more of the named
27 Defendants, their divisions, subsidiaries or affiliates, or their co-conspirators, and suffered injury
28 as a result of the unlawful conduct alleged herein.

23. Plaintiff Univisions-Crimson Holding, Inc. (“UCH”) is a New York corporation with its principal place of business in Syracuse, New York. During the Class Period, UCH purchased Lithium Ion Batteries and Lithium Ion Battery Products from one or more of the named Defendants, their divisions, subsidiaries or affiliates, or their co-conspirators, and suffered injury as a result of the unlawful conduct alleged herein.

24. Plaintiff Terri Walner is a resident of Illinois. During the Class Period, Ms. Walner purchased a Lithium Ion Battery from one of the named Defendants, its divisions, subsidiaries or affiliates, or its co-conspirators, and suffered injury as a result of the unlawful conduct alleged herein.

B. The LG Defendants

25. Defendant LG Chem, Ltd. is a Korean corporation headquartered at 20 Yeouido-dong, Yeongdeungpo-gu, Seoul 150-721, South Korea. LG Chem, Ltd. is an affiliate of Seoul-based conglomerate LG Electronics, Inc. LG Chem, Ltd. is one of the world’s leading manufacturers of Lithium Ion Batteries. LG Chem, Ltd., including through its subsidiaries and affiliates, participated in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries that were purchased throughout the United States, including in this District, during the Class Period.

26. Defendant LG Chem America, Inc. is a Delaware corporation headquartered at 910 Sylvan Avenue, Englewood Cliffs, New Jersey 07632. LG Chem America, Inc. is a wholly-owned subsidiary of LG Chem, Ltd. LG Chem America, Inc., including through its subsidiaries and affiliates, participated in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries that were purchased throughout the United States, including in this District, during the Class Period.

27. Defendants LG Chem, Ltd. and LG Chem America, Inc. are collectively referred to as “LG.”

C. The Samsung Defendants

28. Defendant Samsung SDI Co., Ltd. is a Korean corporation headquartered at 428-5 Gongse-dong Giheung-gu, Yongin Kyunggi-do, South Korea. Samsung SDI Co., Ltd. is one of

the world's largest manufacturers of Lithium Ion Batteries. Samsung SDI Co., Ltd., including through its subsidiaries and affiliates, participated in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries that were purchased throughout the United States, including in this District, during the Class Period.

29. Defendant Samsung SDI America, Inc. is a California corporation with its principal place of business at 3333 Michelin Drive, Suite 700, Irvine, California 92612. Samsung SDI America, Inc. is more than 90% owned by Samsung SDI Co., Ltd., with the remainder owned by another Samsung SDI affiliate. Samsung SDI America, Inc., including through its subsidiaries and affiliates, participated in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries that were purchased throughout the United States, including in this District, during the Class Period.

30. Defendants Samsung SDI Co., Ltd. and Samsung SDI America, Inc. are collectively referred to as "Samsung."

31. LG and Samsung are collectively referred to at times as the "Korean Defendants."

D. The Panasonic Defendants

32. Defendant Panasonic Corporation, formerly known as Matsushita Electric Industrial Co., Ltd. ("MEI"), is a Japanese corporation headquartered at 1006 Oaza Kadoma, Kadoma-shi, Osaka 571-8501, Japan. During the Class Period, Matsushita Battery Industrial Co., Ltd. ("MBI") was a wholly-owned subsidiary of MEI and manufactured and sold Lithium Ion Batteries and Lithium Ion Battery Products. MEI and MBI are collectively referred to herein as "Matsushita." Effective October 1, 2008, MEI changed its name to Panasonic Corporation. MBI became an internal divisional company of Panasonic Corporation. Panasonic Corporation is one of the world's leading manufacturers of Lithium Ion Batteries and Lithium Ion Battery Products. Panasonic Corporation, including through its subsidiaries and affiliates, participated in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries that were purchased throughout the United States, including in this District, during the Class Period.

33. Defendant Panasonic Corporation of North America, formerly known as Matsushita Electric Corporation of America, is a Delaware corporation with its principal place of business at One Panasonic Way, Secaucus, New Jersey 07094. Panasonic Corporation of North America is a wholly-owned subsidiary of Panasonic Corporation. Panasonic Corporation of North America, including through its subsidiaries and affiliates, participated in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries and Lithium Ion Battery Products that were purchased throughout the United States, including in this District, during the Class Period.

34. Defendants Panasonic Corporation and Panasonic Corporation of North America are collectively referred to as “Panasonic.”

E. The Sanyo Defendants

35. Defendant Sanyo Electric Co., Ltd. is a Japanese corporation headquartered at 5-5 Keihan-Hondori 2-chome, Moriguchi City, Osaka 570-8677, Japan. Sanyo Electric Co., Ltd. is one of the largest manufacturers and suppliers of Lithium Ion Batteries in the world. Sanyo Electric Co., Ltd. became wholly-owned by Panasonic Corporation in December 2009. Sanyo Electric Co., Ltd., including though Sanyo GS Soft Energy Co., Ltd. (“GS Soft Energy”)—its joint venture with Defendant GS Yuasa Corporation—and its other subsidiaries and affiliates, participated in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries and Lithium Ion Battery Products that were purchased throughout the United States, including in this District, during the Class Period.

36. Defendant Sanyo North America Corporation is a Delaware corporation with its principal place of business at 2055 Sanyo Avenue, San Diego, California 92154. Sanyo North America Corporation was a wholly-owned subsidiary of Sanyo Electric Co., Ltd. In December 2009, Sanyo North America Corporation became an indirect wholly-owned subsidiary of Panasonic Corporation. Sanyo North America Corporation, including through its subsidiaries and affiliates, participated in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries and Lithium Ion Battery Products that were purchased throughout the United States, including in this District, during the Class Period.

1 37. Defendants Sanyo Electric Co., Ltd. and Sanyo North America Corporation are
2 collectively referred to as “Sanyo.”

3 **F. The Sony Defendants**

4 38. Defendant Sony Corporation is a Japanese corporation headquartered at 1-7-1
5 Konan, Minato-Ku, Tokyo 108-0075, Japan. Sony Corporation invented the Lithium Ion Battery
6 in 1991 and since then has been one of the world’s leading suppliers of Lithium Ion Batteries.
7 Sony Corporation, including through its subsidiaries and affiliates, participated in the conspiracy
8 alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries and
9 Lithium Ion Battery Products that were purchased throughout the United States, including in this
10 District, during the Class Period.

11 39. Sony Energy Devices Corporation is a Japanese corporation headquartered at 1-1
12 Shimosugishita, Takakura, Hiwada-machi, Koriyama-shi, Fukushima, 963-0531 Japan. Sony
13 Energy Devices Corporation is a wholly-owned subsidiary of Sony Corporation. Sony Energy
14 Devices Corporation and its predecessors, including through its subsidiaries and affiliates,
15 participated in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold
16 Lithium Ion Batteries that were purchased throughout the United States, including in this District,
17 during the Class Period.

18 40. Defendant Sony Electronics, Inc. is a Delaware corporation with its principal place
19 of business at 16530 Via Esprillo, MZ 7180, San Diego, California 92127. Sony Electronics, Inc.
20 is an indirect wholly-owned subsidiary of Defendant Sony Corporation. Sony Electronics, Inc.,
21 including through its subsidiaries and affiliates, participated in the conspiracy alleged in this
22 Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries and Lithium Ion
23 Battery Products that were purchased throughout the United States, including in this District,
24 during the Class Period.

25 41. Defendants Sony Corporation, Sony Energy Devices Corporation, and Sony
26 Electronics, Inc. are collectively referred to as “Sony.”

27
28

G. The Hitachi Maxell Defendants

42. Defendant Hitachi Maxell, Ltd. is a Japanese company with its principal place of business at 2-18-12 Iidabashi, Chiyoda-ku, Tokyo 102-8521, Japan. Hitachi Maxell, Ltd. became a wholly-owned subsidiary of Hitachi, Ltd. in April 2010. On December 31, 2012, Hitachi Maxell Energy, Inc. merged into Hitachi Maxell, Ltd., which became the successor-in-interest to Hitachi Maxell Energy, Inc. Hitachi Maxell, Ltd., including through its subsidiaries and affiliates, participated in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries throughout the United States, including in this District, during the Class Period.

43. Defendant Maxell Corporation of America is a New Jersey corporation with its principal place of business at 3 Garrett Mountain Plaza, 3rd Floor, Suite 300, Woodland Park, New Jersey 07424. Maxell Corporation of America is a wholly-owned subsidiary of Hitachi Maxell, Ltd. Maxell Corporation of America, including through its subsidiaries and affiliates, participated in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries throughout the United States, including in this District, during the Class Period.

44. Defendants Hitachi Maxell, Ltd. and Maxell Corporation of America are collectively referred to as “Hitachi Maxell.”

H. The GS Yuasa Defendant

45. Defendant GS Yuasa Corporation is a business entity organized under the laws of Japan, with its principal place of business at 1, Inobanba-cho, Nishinosho, Kisshoin, Minami-ku, Kyoto 601-8520, Japan. Its businesses include the manufacture and supply of batteries, power supply systems, lighting equipment, and other specialty electrical equipment. GS Yuasa Corporation and Sanyo Electric Co., Ltd. were joint venture parents of GS Soft Energy, which was the successor-in-interest to GS-Melcotec Co. (“GS-Melcotec”). GS Soft Energy was a business entity organized under the laws of Japan, with its principal place of business at 5, Ichinodancho, Kisshoinshinden, Minami-Ku Kyoto 601-8397, Japan. GS Yuasa Corporation, including through its subsidiaries and/or affiliates GS-Melcotec and GS Soft Energy, participated in the conspiracy

1 alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries
2 throughout the United States, including in this District, during the Class Period.

3 46. Defendant GS Yuasa Corporation is referred to herein as “GS Yuasa.”

4 **I. The NEC Defendants**

5 47. Defendant NEC Corporation is a business entity organized under the laws of Japan,
6 with its principal place of business at 7-1, Shiba 5-chome Minato-ku, Tokyo 108-8001, Japan.
7 NEC Corporation, including through its subsidiaries and affiliates, participated in the conspiracy
8 alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries
9 throughout the United States, including in this District, during the Class Period.

10 48. Defendant NEC Tokin Corporation (“NEC Tokin”) is a business entity organized
11 under the laws of Japan, with principal places of business at 7-1, Kohriyama 6-chome, Taihaku-
12 ku, Sendai-shi, Miyagi 982-8510 and 1-1, Asahicho 7-chome, Shirosi-shi, Miyagi 989-0223,
13 Japan. NEC Tokin is a wholly-owned subsidiary of NEC Corporation. NEC Tokin participated
14 in the conspiracy alleged in this Complaint and manufactured, marketed, and/or sold Lithium Ion
15 Batteries throughout the United States, including in this District, during the Class Period.

16 49. Defendants NEC Corporation and NEC Tokin are collectively referred to as
17 “NEC.”

18 **J. The Toshiba Defendants**

19 50. Defendant Toshiba Corporation is a business entity organized under the laws of
20 Japan, with its principal place of business at 1-1, Shibaura 1-chome, Minato-ku, Tokyo 105-8001,
21 Japan. Toshiba Corporation, including through its subsidiaries A&T Battery Corporation and
22 Toshiba America Electronic Components, Inc., participated in the conspiracy alleged in this
23 Complaint and manufactured, marketed, and/or sold Lithium Ion Batteries throughout the United
24 States, including in this District, during the Class Period.

25 51. Defendant Toshiba America Electronic Components, Inc. (“TAEC”) is an indirect
26 wholly-owned subsidiary of Toshiba Corporation established in March 1989. It is a business
27 entity organized under the laws of the United States of America, with its principal place of
28 business at 19900 MacArthur Boulevard, Suite 400, Irvine, California 92612. TAEC, including

1 through its subsidiaries and affiliates, participated in the conspiracy alleged in this Complaint and
 2 manufactured, marketed, and/or sold Lithium Ion Batteries throughout the United States, including
 3 in this District, during the Class Period.

4 52. Defendants Toshiba Corporation and TAEC, and A&T Battery Corporation, are
 5 collectively referred to as “Toshiba.”

6 53. Panasonic, Sanyo, Sony, Hitachi Maxell, GS Yuasa, NEC, and Toshiba are
 7 collectively referred to at times as the “Japanese Defendants.”

8 **IV. AGENTS AND CO-CONSPIRATORS**

9 54. Defendants’ officers, directors, agents, employees, or representatives engaged in
 10 the conduct alleged in this Complaint in the usual management, direction, or control of
 11 Defendants’ business or affairs.

12 55. Defendants are also liable for acts done in furtherance of the alleged conspiracy by
 13 companies they acquired through mergers and acquisitions.

14 56. When Plaintiffs refer to a corporate family or companies by a single name in this
 15 Complaint, they are alleging that one or more employees or agents of entities within that corporate
 16 family engaged in conspiratorial acts on behalf of every company in that family. The individual
 17 participants in the conspiratorial acts did not always know the corporate affiliation of their
 18 counterparts, nor did they distinguish between the entities within a corporate family. The
 19 individual participants entered into agreements on behalf of their respective corporate families. As
 20 a result, those agents represented the entire corporate family with respect to such conduct, and the
 21 corporate family was party to the agreements that those agents reached.

22 57. Each Defendant acted as the agent of, co-conspirator with, or joint venturer of the
 23 other Defendants and co-conspirators with respect to the acts, violations and common course of
 24 conduct alleged in this Complaint. Each Defendant or co-conspirator that is a subsidiary of a
 25 foreign parent acted as the United States agent for Lithium Ion Batteries, Lithium Ion Battery
 26 Cells, and/or Lithium Ion Battery Products made by its parent company.

27 58. Various persons, partnerships, sole proprietors, firms, corporations, and individuals
 28 not named as Defendants in this lawsuit, and individuals, both known and unknown, participated

1 as co-conspirators with Defendants in the offenses alleged in this Complaint, and performed acts
2 and made statements in furtherance of the conspiracy. Plaintiffs reserve the right to name some or
3 all of these persons and entities as Defendants at a later date.

4 **V. TRADE AND COMMERCE**

5 59. During the Class Period, each Defendant and co-conspirator, or one or more of its
6 subsidiaries, affiliates, and/or joint ventures, sold Lithium Ion Batteries and/or Lithium Ion Battery
7 Products in the United States in a continuous and uninterrupted flow of interstate commerce and
8 foreign commerce, including through and into this judicial District.

9 60. During the Class Period, Defendants collectively imported billions of dollars of
10 Lithium Ion Batteries and Lithium Ion Battery Products into the United States. Such conduct
11 constitutes United States import trade and/or import commerce.

12 61. In addition, substantial quantities of equipment and supplies necessary to the
13 production and distribution of Lithium Ion Batteries and Lithium Ion Battery Products, as well as
14 payments for Lithium Ion Batteries, Lithium Ion Battery Products, and related products sold by
15 Defendants and purchased by Plaintiffs and members of the Class, traveled in United States
16 domestic interstate commerce, United States import and export commerce, and foreign trade and
17 commerce.

18 62. Defendants sold their Lithium Ion Batteries and Lithium Ion Battery Products
19 through various direct channels, including to manufacturers, distributors, and retailers of electronic
20 products and devices. Some Defendants and their divisions, subsidiaries, and affiliates also sold
21 their Lithium Ion Batteries and Lithium Ion Battery Products directly to end users, through brick-
22 and-mortar stores in the United States or online through United States-based websites such as
23 store.sony.com, shop.panasonic.com, and www.toshibadirect.com. Sales by Defendants in the
24 United States to purchasers such as Plaintiffs and members of the Class constitute United States
25 domestic commerce, and do not implicate foreign trade.

26 63. California is the worldwide center of the electronics industry and other industries
27 that depend on Lithium Ion Batteries and Lithium Ion Battery Products. Statements concerning
28

1 the prices and market conditions for Lithium Ion Batteries and Lithium Ion Battery Products were
2 disseminated by Defendants from and into California on a regular and continuous basis.

3 64. Seven of the nine Defendant groups—LG, Panasonic, Sanyo, Sony, Samsung,
4 Hitachi Maxell, and Toshiba—maintained sales and marketing arms in the United States to
5 conduct business with major customers.⁴ These Defendants are incorporated, located, and
6 headquartered in the United States, and each does substantial business in domestic interstate
7 commerce throughout the United States. For example, Defendant Samsung SDI America, Inc.
8 stationed sales and marketing personnel in Los Angeles, Chicago, Austin, and Houston to be
9 responsible for Dell, Apple, Lab126, Garmin, Palm, Black & Decker, Hewlett-Packard (“HP”),
10 Motorola, and other accounts. Those United States-based personnel reported to Y.A. Oh, who
11 served simultaneously as the President of Samsung SDI America, Inc. and as the Vice President
12 for North America of Samsung SDI Co., Ltd. Sanyo similarly stationed sales and engineering
13 personnel in Texas to support the HP and Dell accounts, and in Chicago to support the Motorola
14 and Black & Decker accounts. Sony also responded to its United States customers’ demands for
15 lower prices by dispatching business and engineering personnel to its offices in the United States.

16 65. The activities of Defendants in connection with the production, sale, and/or
17 importation of Lithium Ion Batteries and Lithium Ion Battery Products, and the conduct of
18 Defendants and their co-conspirators as alleged in this Complaint: (a) constituted United States
19 domestic interstate trade or commerce; (b) constituted United States import trade or import
20 commerce; and/or (c) were within the flow of and had a direct, substantial, and reasonably
21 foreseeable effect on United States domestic trade or commerce and/or United States import trade
22 or commerce. Given the marketing, importation, and sales by Defendants of Lithium Ion Batteries
23 and Lithium Ion Battery Products in the United States, and the volume of affected commerce, as
24 alleged in this Complaint, such effects were direct and substantial.

25
26 _____
27 ⁴ The remaining Defendant groups also have United States-based subsidiaries that do substantial
28 business in domestic interstate commerce throughout the United States.

66. In addition, because the United States is one of the world's largest markets for Lithium Ion Batteries and Lithium Ion Battery Products, it is reasonably foreseeable that Defendants' wrongful conduct, as alleged in this Complaint, would raise and artificially inflate prices for Lithium Ion Batteries and Lithium Ion Battery Products sold in the United States, and would have an effect on United States domestic trade or commerce and/or United States import trade or commerce.

67. Such effects, including the artificially raised and inflated prices that Plaintiffs and members of the proposed Class paid for Lithium Ion Batteries and Lithium Ion Battery Products during the Class Period, caused antitrust injury in the United States to Plaintiffs and members of the proposed Class, and give rise to their claims under Section 1 of the Sherman Act.

VI. FACTUAL ALLEGATIONS

A. Rechargeable Batteries

68. There are two general categories of batteries: disposable (primary) batteries, which are used until they are fully depleted and then discarded, and rechargeable (secondary) batteries, which can be recharged and used for a longer period of time. Rechargeable batteries can be categorized into five different types: (1) lead-acid; (2) nickel cadmium ("NiCd"); (3) nickel-metal hydride ("NiMH"); (4) nickel-zinc; and (5) lithium ion ("Li-ion").

69. Lead-acid batteries, commonly used in motor vehicles, historically dominated the market for rechargeable batteries. Over time, innovations in portable technology—such as laptop computers and cellular phones—led to a demand for rechargeable batteries that had a higher energy-to-weight/energy-to-volume ratio than lead-acid batteries. Thus, rechargeable battery manufacturers began looking to other technologies, such as nickel-based and Lithium Ion Batteries.

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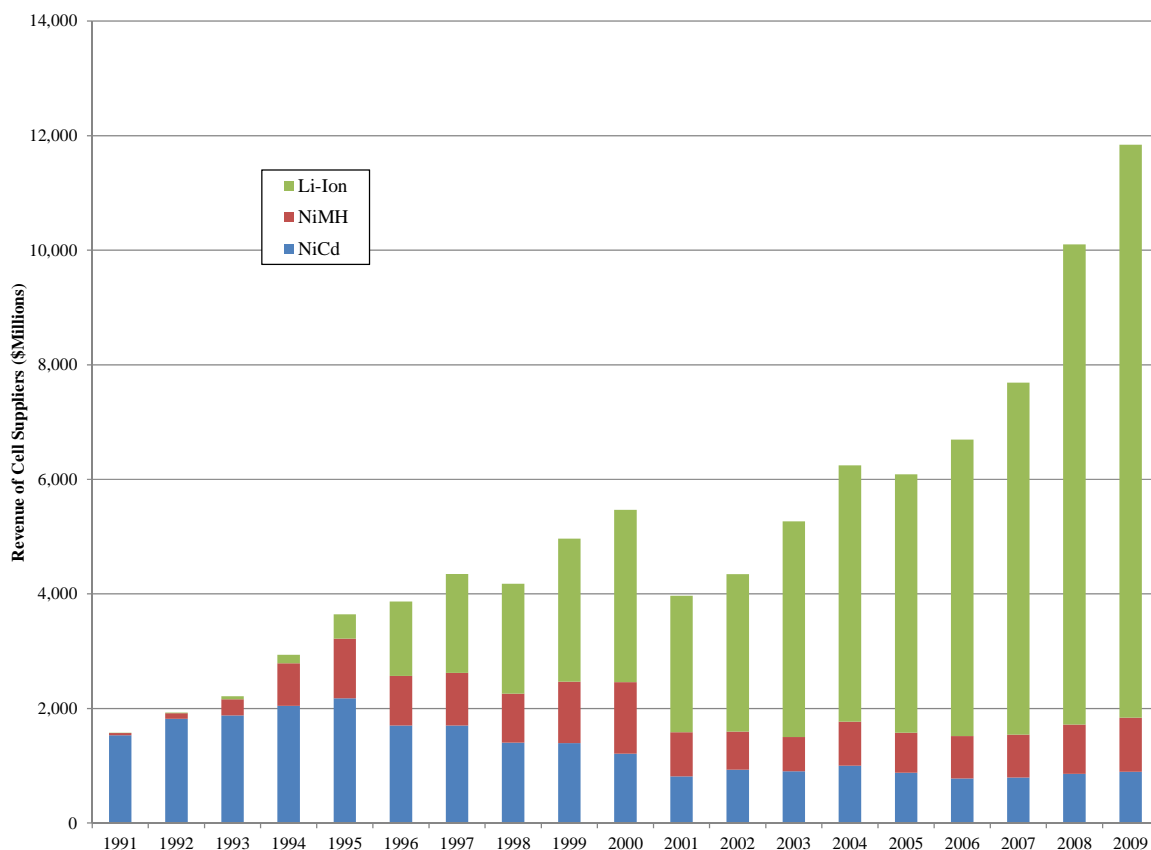
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70. Lithium Ion Batteries were first introduced into the market in 1991. By 2000 they had become the most popular type of rechargeable batteries, as evidenced in the following graph:

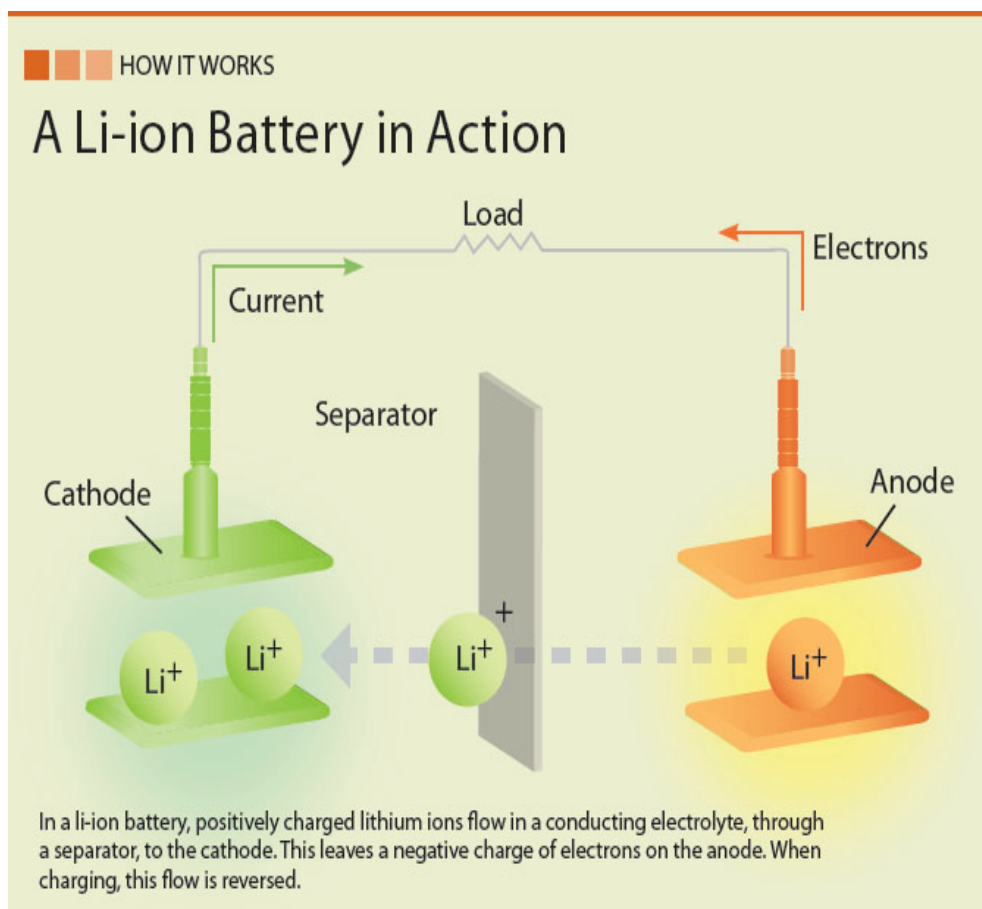


Source: *IIT LIB Market Bulletin* (values converted to USD using Bloomberg exchange rates).

71. Lithium Ion Batteries became the preferred power source for most portable electronics because of their higher energy density, longer cycle life, and higher operational voltage as compared to NiCd and NiMH systems. In 2002, Lithium Ion Batteries represented 63% of the value of all rechargeable battery shipments for portable and consumer devices. By 2011, that share had grown to 88%.

B. Lithium Ion Batteries

72. A Lithium Ion Battery generally contains four primary components: (1) the negative electrode (cathode); (2) the positive electrode (anode); (3) the electrolyte; and (4) the separator:



73. Rechargeable Lithium Ion Batteries work due to the spontaneous release of lithium ions from the positive electrode (anode) and acceptance of these ions in the negative electrode (cathode). The lithium ions migrate from the anode through the solvent/salt mixture (electrolyte) to the cathode. At the same time, electrons released due to the migration of lithium ions from the anode flow through the device that needs the power, and are returned to the cathode. This electron flow is how a battery supplies power to a device. When the battery is being recharged, the flow and migration pathways are reversed; the lithium ions are driven from the cathode through the solvent/salt mixture back to the anode where they reside, and the required electrons are driven into the anode through the charging circuitry. The battery is now charged and is ready to be used again.

74. The positive electrode is typically composed of a thin porous layer of powdered lithium cobalt oxide (or other compounds like lithium iron phosphate) and electronically conductive carbon particles bound by a polymeric binder like polyvinylidene fluoride mounted on

1 aluminum foil. The negative electrode is typically composed of a thin porous layer of graphite
2 powder and other forms of carbon bound by a polymeric binder like polyvinylidene fluoride
3 mounted on copper foil. The two electrodes are separated by a porous plastic film soaked
4 typically in a mixture of organic solvents and a lithium salt such as lithium hexafluorophosphate.
5 Because of the reactive nature of lithiated compounds, these solvents do not contain water and are
6 typically comprised of ethylene carbonate or similar chemicals.

7 75. Initial designs, still in use, include microporous separators where the solvent/salt
8 mixture is contained within the pores. Some cells contain one separator, while others contain two
9 layers of separators. These separators are then sandwiched between positive and negative
10 electrodes and then often spirally wound together in either cylindrical or prismatic forms
11 depending on the particular intended end use. More recent designs employ polymer gel
12 separators, in which the electrolyte and polymer form an intimate mixture. There is no “free”
13 electrolyte in such cells. Flat sheets of anode, separator, and cathode are stacked, laminated, and
14 packaged in a pouch.

15 76. Lithium Ion Batteries possess certain characteristics that give them advantages over
16 other types of rechargeable batteries. Lithium Ion Batteries are smaller, lighter, and have higher
17 energy density and specific energy than other types of rechargeable batteries. Higher energy
18 density means that Lithium Ion Batteries hold higher amounts of energy per unit volume than
19 other types of rechargeable batteries. Higher specific energy means that Lithium Ion Batteries
20 hold higher amounts of energy per unit weight than other types of rechargeable batteries. A
21 smaller and lighter Lithium Ion Battery can generate the same amount of electricity as, for
22 example, a larger and heavier nickel-metal hydride battery. A state-of-the-art one-kilogram
23 Lithium Ion Battery can store the same amount of energy as a five-kilogram lead-acid battery.

24 77. Unlike other types of rechargeable batteries, Lithium Ion Batteries do not suffer
25 from any memory effect. “Memory effect” is the phenomenon in which certain batteries lose their
26 capacity and voltage when repeatedly charged and discharged to a fraction of their full capacity.
27 For example, if a nickel-metal hydride battery is repeatedly charged and discharged to a fraction of
28 the capacity several times, then subsequent attempts to fully discharge the battery will result in a

1 lower capacity and voltage. In one example the battery was discharged to 75% capacity seventeen
 2 times. In the eighteenth cycle, the cell was cycled to the fully discharged voltage but only 90% of
 3 the capacity could be recovered. The memory effect is a disadvantage, even though it does not
 4 reflect permanent damage of the cell components. Additional full charge-discharge cycles result
 5 in an increase in battery capacity, *i.e.*, the cell recovers. Lithium Ion Batteries do not suffer from
 6 this memory effect and can be recharged and discharged to a fraction of their capacity without
 7 permanently losing capacity.

8 78. Another advantage of Lithium Ion Batteries is that they have low self-discharge
 9 rates. This means that they lose minimal amounts of their charge when they are not being used.
 10 Lithium Ion Batteries lose approximately 5% of their charge per month when they are idle,
 11 compared to 10%–20% per month for nickel cadmium batteries and over 30% per month for
 12 nickel-metal hydride batteries.

13 79. These and other characteristics of Lithium Ion Batteries have made them the
 14 standard battery of choice in consumer electronic products. As shown below, throughout the
 15 Class Period the majority, and at times the large majority, of Lithium Ion Batteries were for
 16 cellular phone and notebook computer applications. Many are also used in digital cameras,
 17 camcorders, power tools, and other devices:

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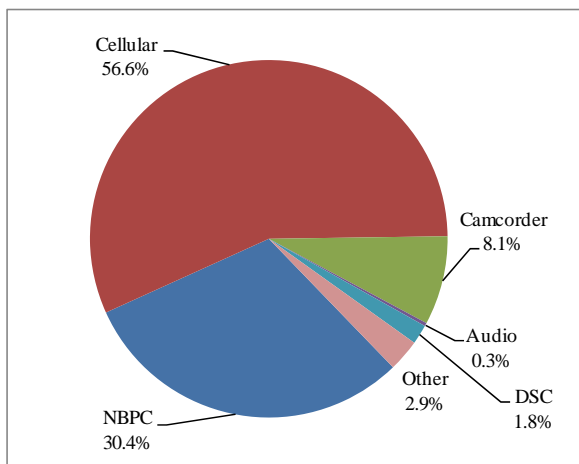
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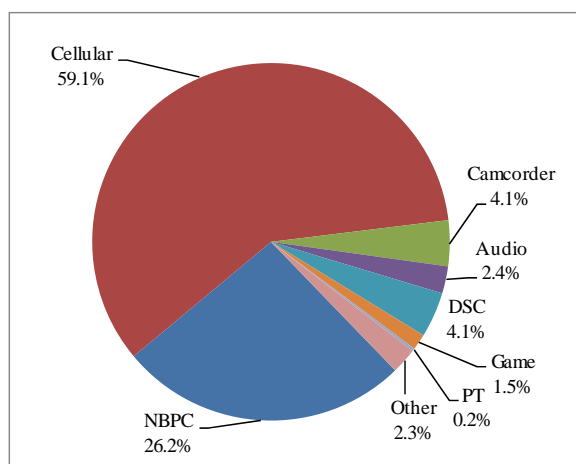
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Application Share of Li-Ion Battery Shipments

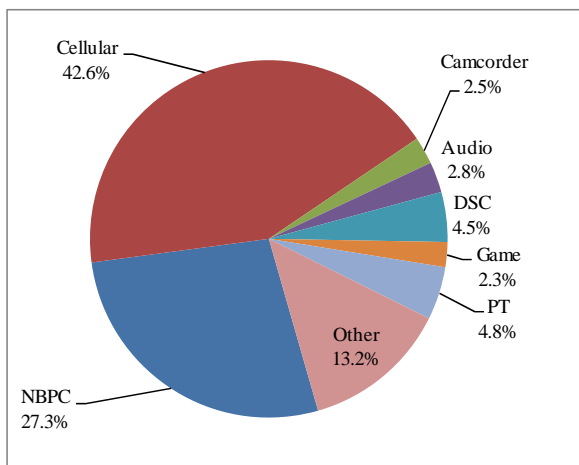
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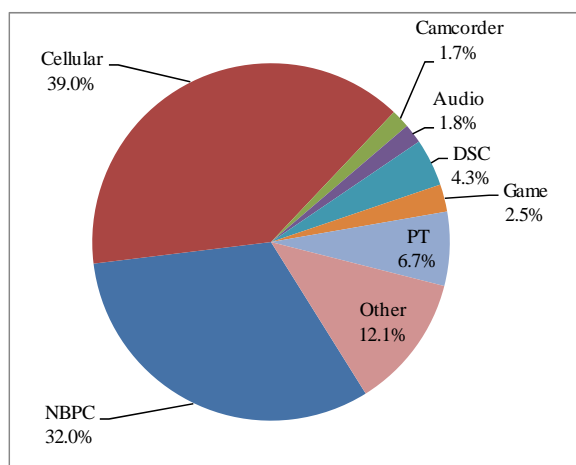
2004



2008



2011



Source: Institute of Information Technology (IIT) LIB Market Bulletins (for 2000, 2004, and 2008 charts); Avicenne Energy World Rechargeable Battery Report, April 2012 (2011 chart). “NBPC” refers to notebook personal computer. “PT” refers to power tool. “DSC” refers to digital still camera.

80. Lithium Ion Battery Cells are often combined with other cells into packs intended for insertion and use in the device. The process of combining cells into packages together with the associated circuitry is referred to as packing. The assembly of battery cells into battery packs does not alter the essential character of the cells. Rather, packing allows the cells to operate as a battery to provide power for a Lithium Ion Battery Product. Typically, the cost of materials that go into a cell accounts for 80%–90% of the cost of a pack. In general, the cathode is the most expensive material component, followed by the electrolyte, anode, and separator. A much smaller

1 percentage of component cost is dedicated to packaging and the basic circuitry. The packaging
2 controls charge and discharge levels, and interconnects multiple cells for powering various
3 electronic and other devices.

4 81. Besides manufacturing, packing, and selling their own batteries, Defendants also
5 provide some of their battery cells to other companies known as “packers” for assembly into a
6 battery pack. Sometimes a packer sells the battery pack under the packer’s own name.
7 Defendants also use packers as their agents, acting on Defendants’ behalf, to pack and label
8 batteries under Defendants’ names. Defendants and their divisions, subsidiaries, or affiliates sell
9 these battery packs either as stand-alone products or as components of Lithium Ion Battery
10 Products.

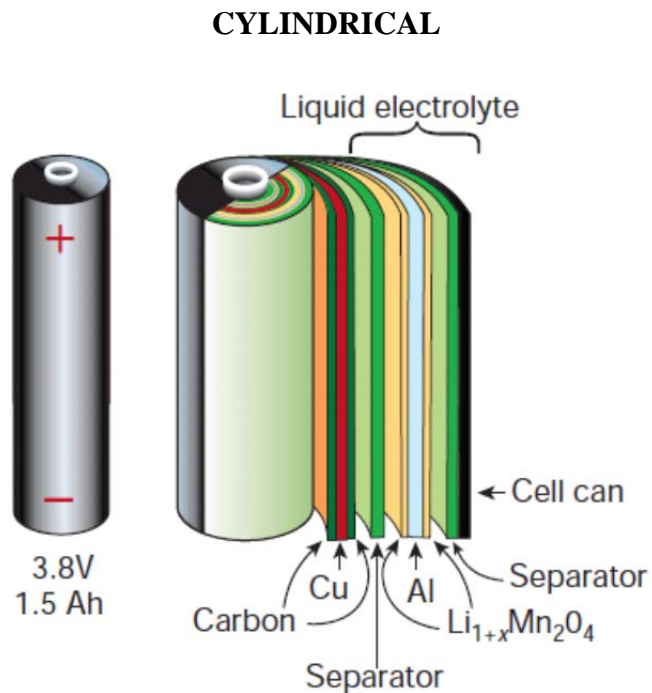
11 82. Three packers based in Taiwan are Simplo Technology, Inc., Celxpert Energy
12 Corporation, and Dynapack International Technology Corporation. For the most part, these and
13 other packers do not manufacture their own battery cells. In general, they source their battery cells
14 from Defendants and in certain circumstances, require Defendants’ authorization to pack Lithium
15 Ion Batteries for Defendants. As a result, packers are dependent upon Defendants for their
16 business and must maintain a close relationship with Defendants to keep the supply chain intact.

17 83. As alleged above, cells are the core part of the battery pack and have no practical
18 use on their own. There is no meaningful practical or economic distinction between cells and
19 batteries in terms of how the price fix occurred. Aside from the commerce representing batteries
20 sold by packers under their own names, the commerce that is the subject of this Complaint (in
21 addition to Lithium Ion Battery Products) are batteries which Defendants themselves packed or
22 which were packed by companies acting on behalf of Defendants, or at Defendants’ direction.
23 Defendants sold these packs to the Class of purchasers on whose behalf this Complaint is brought.

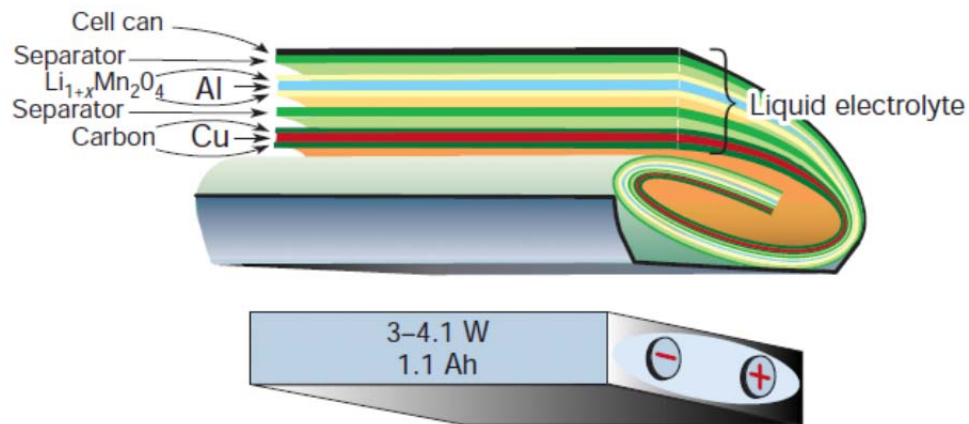
24 84. A Lithium Ion Battery is sold as a stand-alone product, or as a substantial part of a
25 Lithium Ion Battery Product. When a Lithium Ion Battery is sold as a stand-alone product, the
26 battery and the cell inside the battery itself are directly traceable to the specific manufacturer.
27 When a Lithium Ion Battery is sold as part of a Lithium Ion Battery Product, it is a distinct,
28 physically discrete element of the finished product and is identifiable by a specific, discrete part or

1 model number that permits tracing. Lithium Ion Batteries are traceable and identifiable
 2 throughout the chain of distribution.

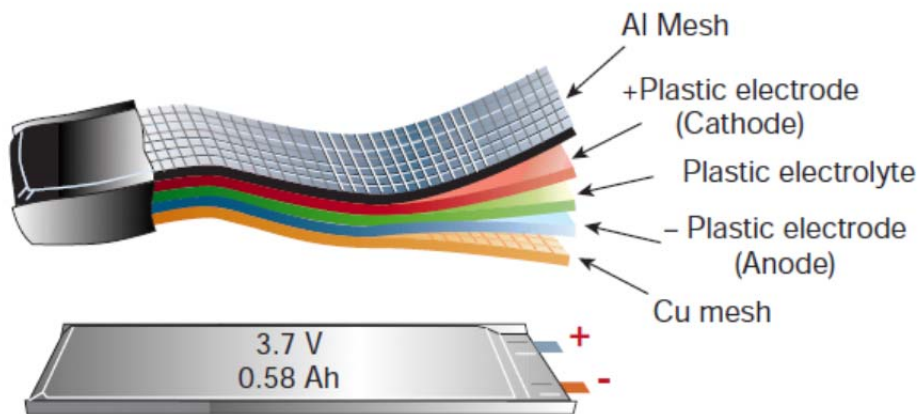
3 85. Three formats—cylindrical, prismatic, and polymer—comprise the market at the
 4 heart of the conspiracy alleged in this case:



PRISMATIC



POLYMER



86. Defendants acknowledge that the basic composition and manufacturing for each of these formats largely overlaps. For instance, Sony's Battery Technology Planning Team Leader has explained that the chemistry of polymer batteries and prismatic batteries is the same. As a result, Sony viewed the Lithium Ion Battery business as a single overall market, rather than as separate markets for each type of battery format.

87. Lithium Ion Batteries generally are not interchangeable among other types of rechargeable batteries, such as nickel cadmium, nickel-metal hydride, and nickel-zinc. These

1 other types of rechargeable batteries have different charge-discharge characteristics than Lithium
 2 Ion Batteries. Unless an electronic device's charger is pre-configured by the manufacturer to
 3 accept different types of rechargeable batteries, these other batteries will not work properly with
 4 the device. The technology used to make Lithium Ion Batteries is standard across manufacturers,
 5 however, meaning that Lithium Ion Batteries are fungible within the various formats discussed
 6 above.

7 88. Lithium Ion Batteries are highly standardized products, and interchangeable among
 8 products of the same type and across manufacturers. These factors make Lithium Ion Batteries
 9 susceptible to commoditization—a process whereby a good that once possessed distinct attributes
 10 ends up being an indistinguishable commodity. Commodities are wholly or partially fungible,
 11 and since they are viewed by the market as equivalent without regard to who produced them,
 12 customers tend to purchase them on the basis of price alone. Once a good is wholly
 13 commoditized, producers can increase their market share only by cutting prices, thus leading to
 14 lower sales prices to customers. This is precisely the situation Defendants wanted to avoid, and
 15 explains why they colluded to restrain supply and stabilize Lithium Ion Battery prices.

16 **C. Defendants Colluded to Keep the Price of Lithium Ion Batteries Elevated**
 17 **During the Class Period**

18 89. As alleged in this Complaint, Defendants engaged in a conspiracy to fix, raise,
 19 stabilize, and maintain the price of Lithium Ion Batteries throughout the Class Period.
 20 Defendants' acts, practices, and course of conduct in furtherance of their conspiracy evolved over
 21 time and included, but were not limited to the following: coordinating prices for specific
 22 customers and products; engaging in continuous communications on confidential and proprietary
 23 business matters to eliminate price competition; allocating market shares; restricting supply of
 24 Lithium Ion Batteries; using input costs as a pretext for industry-wide pricing formulas; and
 25 concocting mechanisms to nullify competitive sales processes to their customers. Examples of
 26 Defendants' conduct are described in detail below.

1. The Korean Defendants' entry into the market undermined Japanese dominance and threatened to cause prices to drop

90. In 1991, Sony released the first commercial Lithium Ion Battery. Between 1991 and 1999, Sony and its fellow Japanese suppliers dominated the market for Lithium Ion Batteries, with 95% of the world's secondary batteries coming from Japan by 2000. Prices for Lithium Ion Batteries remained stable during this period.

91. Around 1999, Korean manufacturers entered the Lithium Ion Battery market, posing the first competitive threat to the Japanese suppliers. LG became the first Korean manufacturer of Lithium Ion Batteries in 1999, and Samsung followed in 2000.

92. To stem the decline in Lithium Ion Battery prices caused by the competition between the Japanese and Korean producers, the Japanese Defendants conspired with the Korean Defendants to fix, raise, stabilize, and maintain prices. As alleged in detail below, Defendants took various acts in furtherance of this conspiracy over the course of at least 110 illicit meetings and communications that began in 2000, evolved over time, and lasted until May 2011.

93. Participating in many of these meetings and communications were top-level management for Defendants including, among others:

- a. For LG—Soon Yong Hong (Executive Vice President), Myung Hwan Kim (Director, Battery Division), and Joon Hoo Lee (Vice President, LG Notebook Division);
- b. For Samsung—Jin Geon Lee (Executive Vice President and Sales Team Leader), Oong Kyun Kim (General Manager), Jong Seon Park (Senior Manager), and Hee Kyu Yeo (Group Leader and Senior Manager);
- c. For Panasonic—Toru Ishida (President) and Masatsugu Kondo (Director, Small Battery Division);
- d. For Sanyo—Toshimasa Iue (President and COO) and Mr. Ikegami (General Manager);
- e. For Sony—Mr. Gazi (CEO, Sony Energy Company) and Yutaka Nakagawa (Deputy President, Sony Micro Systems Network Company and President, Sony Energy Company);

- 1 f. For Hitachi Maxell—Kakbon Kakumoto (Vice Director of Battery Sales
2 Headquarter and Business Strategy General Manager) and Taekjeong Sawai
(Proxy General Manager of Business Strategy Division);
- 3 g. For GS Soft Energy—Mr. Homma (President), its Vice President and its
4 General Manager;
- 5 h. For NEC—its Executive Vice President and its General Manager (Planning
6 Division), Motohiro Mochizuki (NEC-Tokin’s Head of Business Planning
Department); and
- 7 i. For Toshiba—Hirayama Kazunari (General Manager of Business) and
8 Ozaki Hidemichi (General Manager of Planning).

9 **2. Defendants engaged in collusive communications regarding supply,**
10 **customer information, and market movements**

11 94. Beginning in 2000, when it became apparent that the Korean manufacturers would
12 continue to grow their share of the Lithium Ion Battery market, the Japanese Defendants
13 abandoned their initial hostility to the Korean manufacturers and, instead, began sharing with them
14 confidential and competitively sensitive information regarding supply and demand, market trends,
15 capacity, sales forecasts, and pricing for Lithium Ion Batteries.

16 95. Defendants were able to and did use the confidential, proprietary, and forward-
17 looking information obtained from other Lithium Ion Battery suppliers to set prices to their own
18 customers. This type of information would not normally be exchanged absent collusion, and
19 shows that Defendants were more interested in cooperating with each other rather than competing
20 against each other.

21 96. At first, these collusive meetings took place during semi-annual visits by
22 representatives of the Korean Defendants to the offices of the Japanese Defendants. During the
23 Class Period, these semi-annual meetings usually occurred in late February/early March and again
24 in late July/early August. These semi-annual meetings were frequently supplemented with other
25 gatherings which tended to occur in “off” months such as October or November.

26 97. At the semi-annual meetings, Defendants explicitly sought mutual cooperation and
27 shared commercially sensitive, non-public information pertaining to their respective battery
28 businesses. Topics of discussion at these meetings included supply and demand outlook; sales

1 performance and outlook; expansion plans and capacity; cellular phone and notebook computer
2 market information (the two largest markets for Lithium Ion Batteries); the possibility of moving
3 production to China; expanding to other product markets; updates on competitors; and the impact
4 of raw material prices on the manufacturers' cost structure. One recurring theme among the
5 discussions was that Defendants should agree never to fully meet market demand, thereby
6 ensuring a perennial supply shortage and generating higher prices.

7 98. In addition to their on-site visits, Defendants engaged in other meetings typically at
8 cafes, restaurants, and other out-of-the-way locations.

9 99. Although Defendants were careful during their meetings not to have more than two
10 companies meeting together at any one time (in order to better conceal their conspiratorial
11 behavior), all Defendants participated in such meetings during the Class Period.

12 100. For instance, from March 12–16, 2002, representatives from Samsung's business
13 and marketing teams discussed—in separate meetings with Sony, Sanyo, Hitachi Maxell, GS-
14 Melcotec, and MBI (Panasonic)—current and forecasted supply and demand for cylindrical,
15 polymer, and prismatic Lithium Ion Batteries; production capacity; possible entry into China; the
16 notebook computer battery market; and problems caused by excess product supply. As a result of
17 these meetings, Samsung, Sony and Sanyo (and likely other Defendants) agreed to refrain from
18 extending their existing capacity in order to keep supply tight.

19 101. In July 2002, LG Executive Vice President Hong met with “Division Leaders”
20 from Toshiba, MBI (Panasonic), Sony, and Sanyo to secure cooperation from these Defendants in
21 the Lithium Ion Batteries market.

22 102. The Samsung team returned to Japan during the period October 22–25, 2002, at
23 which time the team met with Sanyo, Toshiba, GS-Melcotec, GS Soft Energy Co., and MBI
24 (Panasonic) to discuss substantially the same subjects that were raised in the March 2002 meeting.
25 Responding to collective fears among Defendants that excess supply would give rise to a drop in
26 price, the Vice President and General Manager of GS Soft Energy encouraged the companies to
27 meet only 80% of market demand. In fact, there was explicit recognition that “With price
28

1 competition only, all will be in trouble → have to make the industry Healthy.” GS Soft Energy
2 and Samsung further discussed a “strategy to get rid of a company which disturbs the market.”

3 103. On November 21, 2002, management representatives from Sony and LG met at
4 Sony’s offices in Japan for the purpose of “maintaining future cooperating relations.” Personnel
5 from Sony Corporation’s Core Technology & Network Company included Senior General
6 Manager Yasuhiro Hosozawa, General Managers Toshiaki Naito and Masaru Hiratsuka, Manager
7 Isao Watanabe, Director Kiyoshi Katayama, and Senior Manager Ryoichi Yamane. LG was
8 represented by Seok Hwan Kwak, LG’s Cell Business Division leader. At this meeting, Sony
9 proposed that the two companies allocate the business according to battery size, because “if the
10 two companies engage in price competition on the size, it would cause a loss to both. . . .” LG
11 promised that, if Sony led an increase in polymer battery prices that was reasonable, LG would
12 follow Sony’s lead.

13 104. The pattern of semi-annual collusive meetings between Korean and Japanese
14 producers of Lithium Ion Batteries continued in June/July and October 2003. For instance,
15 Samsung representatives met with President Homma of GS Soft Energy on June 26, 2003, at
16 which time they discussed 2Q sales forecasts for cylindrical, prismatic, and polymer Lithium Ion
17 Batteries. On July 16, 2003, Samsung and Toshiba met at the Tokyo ANA Hotel to discuss
18 capacity and operating rate information. On October 2, 2003, Samsung representatives met with
19 GS Soft Energy’s General Manager of Marketing at Tokyo’s Shinjuku Restaurant. Discussion
20 topics included the 2004 demand forecast for prismatic and polymer Lithium Ion Batteries, price
21 forecasts, raw material supplies, and each Defendant’s sales trends.

22 **3. As the conspiracy evolved, Defendants fixed prices for specific**
23 **products, refused to compete on price, and restricted Lithium Ion**
24 **Battery supply**

25 105. The year 2004 represented a significant escalation in the intensity of the collusive
26 conduct, with Defendants increasing their cooperation to set prices, avoid price reductions, and
27 tighten supply.
28

1 106. Of critical import were the meetings held between LG and Sony on March 2–3,
 2 2004. According to an LG document entitled “President Minutes on Business Trip to Japan,” the
 3 purpose of the meeting was to introduce “LG Chem’s new management/President of Energy
 4 Company at Sony, and the new division leader to each other, sharing information, and asking for
 5 cooperation among companies.” Participating in this meeting were Yutaka Nakagawa, President
 6 of Sony Energy Company, LG Executive Vice President Hong, and Myung Hwan Kim, Director
 7 of LG’s Battery Division.

8 107. The same “President Minutes” document relates, in meticulous detail, both an
 9 agreement between LG and Sony to fix the price of Lithium Ion Batteries, and the agreement of
 10 the other Defendants to do so as well:

11 Sony plans to raise customer prices as said in Press release on Feb.
 12 24. . . . Sanyo also announced price hikes to customers and MBI also
 13 plans to do so. Afterwards, we received the opinions of NEC/Hitachi
 14 Maxell that they would raise prices as well. . . . We believe that if LG
 15 Chem and [Samsung] cooperated in these moves, the growth of the
 16 Li-Ion battery industry is likely to go in the right direction.

17 Later in the President Minutes, under the heading “LG Chem’s Response,” LG documented that
 18 “[w]e [LG] shared the opinion of Sony and mentioned that we would cooperate on [the price
 19 increase].” LG also made reference to a “prior meeting with our competitor SONY,” conducted
 20 by LG Executive Vice President Hong, “with the aim of achieving cooperation among companies
 21 in order for the growth of the healthy Li-Ion industry.”

22 108. On June 30, 2004, Samsung representatives met with key Sony executives at the
 23 headquarters of Sony Energy Company. The Samsung and Sony representatives discussed price
 24 fluctuation in the notebook PC market, and expressed fear that the price of Lithium Ion Batteries
 25 could fall due to excessive inventory. Sony executives committed to avoiding any price cuts.

26 109. This June 30, 2004 meeting also provided a glimpse into how Defendants viewed
 27 each other, *i.e.*, as collaborators rather than competitors. The President of Sony, in his opening
 28 remarks to the Samsung contingent, stated that Sony was “[v]ery close friends with Samsung . . .
 [h]as visited Samsung several times to discuss cooperation in memory stick.” Further, he was

1 “[g]lad that [Samsung] and Sony have been competitors, but also [have] been able to cooperate
2 with each other at the same times as entities participating in the same business,” and he
3 “[w]ish[ed] such a relationship would continue.”

4 110. On August 9, 2004, Sony and LG met at Sony’s office, where LG “proposed price
5 cooperation to defense prices and to protect the industry, so mentioned that [LG] is also willing to
6 cooperate through active participation.”

7 111. Samsung, Sanyo, Sony, MBI (Panasonic), GS Soft Energy, NEC, and Hitachi
8 Maxell held another round of meetings on February 21–25, 2005 in Tokyo. Worried about being
9 caught between rising raw material costs and softening battery prices, Defendants agreed that they
10 should refrain from adding new production lines to reduce supply and thus stabilize prices. For
11 example, Sanyo, which planned to have four new lines for its cylindrical batteries in operation by
12 the end of 2005, decided instead to add only one. Defendants conveyed a similar message at that
13 year’s second round of meetings, held on July 19–22, 2005. During a July 22, 2005 meeting with
14 Samsung, for example, Hitachi Maxell described a 50% oversupply of prismatic batteries and
15 stated that there was a “[g]ap between the facility CAPA [capacity] and demand, so when
16 considering the actual production CAPA, the rate of oversupply can decrease a bit.”

17 112. Representatives from LG also met with Samsung over lunch in February 2005 to
18 discuss their sales forecasts for various types of Lithium Ion Batteries. They agreed to cooperate
19 in setting the sale price of their Lithium Ion Batteries as much as possible going forward. At a
20 meeting the following month at a coffee shop in Seoul, Defendants again discussed sales volume,
21 capacity, and utilization rates.

22 113. LG and Samsung representatives again met for lunch on July 26, 2005 and
23 discussed sales figures by customer for particular batteries. During this meeting Samsung agreed
24 to set prices for cylindrical batteries at ranges that LG proposed. A note from one of these
25 meetings demonstrates Defendants’ continuing collusion throughout this period, stating that the
26 companies “[p]roposed to minimize damages caused by unnecessary competition in dealing with
27 customers by communicating with each other in the future.”

28

1 114. On October 26, 2005, representatives of Panasonic and Samsung agreed to avoid
2 lowering the prices of certain Lithium Ion Batteries, as described in the notes of the meeting:

3 2.0Ah Ni—Mn [type of cylindrical Lithium Ion Battery] is seen to be
4 Low-cost, but there is no reason to lower the price at the similar level as
current Li-Co.

5 Actually, cost is becoming a little less expensive, but Ni—Mn 2.0Ah's
6 performance is better than Co. Thus no reason to lower the price.

7 115. The year concluded with meetings between Samsung, Sony, and Sanyo on
8 November 14–16, 2005 in Tokyo. Samsung's notes of this meeting again convey the collusive
9 nature of Defendants' business relationship: "[t]rust is solidified through continuous information
10 exchange meetings with Sanyo."

11 116. Defendants' top management continued to play an active role in facilitating the
12 conspiracy. For example, a Business Trip Report reveals that LG executives met with high-level
13 counterparts from Sanyo and Panasonic on September 26, 2005:

14 [t]he objectives of these meetings were to create direct contact points
15 between the top management of LG Chem and Japan's major battery
16 companies. Sanyo and [Panasonic]/share information/create a
17 partnership opportunity for the sound expansion of the market, as well as
18 to establish cooperative relationship between the Battery Association of
19 Japan . . . and the Battery R&D Association of Korea[.] . . . [Finally]
[t]he companies (especially Sanyo) showed their strong willingness to
cooperate with LG Chem in areas where cooperation is possible. The
meetings have created direct contact channels between top managements
of the companies.

20
21 117. The foregoing meeting topics also included pricing. When Sanyo stated that it
22 would not agree to a customer's request for a 20% price reduction, LG responded as follows: "If
23 Sanyo does not lower prices, LG will not down its prices either."

24 118. At meetings between LG and Sony on February 20 and 26, 2006 at Sony's Tokyo
25 offices, a Sony executive, eager to institutionalize the exchange of information between the
26 companies, stated that Sony "hoped that both [Sony and LG] discuss cooperation ways [sic] like
27 information exchanges through regular meetings in the future." The parties discussed holding a
28

1 Division Leader-level meeting between the companies before moving onto a President-level
2 meeting.

3 119. At a lunch meeting with a representative from LG in May 2006, a Samsung
4 representative discussed supply, demand, and pricing information for a number of Samsung's
5 customers. Similar meetings, consistent with the semi-annual meetings institutionalized among
6 Defendants, took place between Samsung and GS Yuasa on August 8, 2006 and March 15, 2007,
7 and between Samsung and MBI (Panasonic) on August 9, 2006.

8
9 **4. A rise in the price of raw materials in early 2007 gave Defendants
further cover to initiate another coordinated price increase**

10 120. In February 2007, the price of cobalt, a key commodity input for Lithium Ion
11 Batteries, rose sharply. Defendants, concerned about being squeezed between rising
12 manufacturing costs and falling battery prices, decided to act. Using the rise in raw material cost
13 as a pretext, Defendants, through a series of clandestine meetings, phone calls, and coded emails,
14 orchestrated a uniform price increase for Lithium Ion Batteries.

15 121. On February 24, 2007, high-level executives from Samsung and Panasonic met in a
16 private room in a restaurant in Seoul, South Korea. The attendees discussed the rise in the price of
17 cobalt and agreed on a formula for collectively raising their prices for Lithium Ion Batteries. The
18 pricing formula was then conveyed to the other Defendants. Samsung spoke to LG over the phone
19 about the proposed price increase, while Panasonic conveyed it to the other Japanese Defendants.
20 Samsung and Panasonic further negotiated the price increase via phone calls and email.

21 122. Just a few days later, on February 27, 2007, high-level executives from LG and
22 Sanyo, including LG Vice President Lee and Sanyo General Manager Mr. Ikegami, met at
23 Akasaka Restaurant to discuss the timing of the price increase, and arranged for a continuous
24 channel of communication with each other.

25 123. To ensure that their price-fixing plan would not be revealed, Defendants used secret
26 codes in their emails: in arranging calls, they would state that the purpose of the call was to
27 discuss "safety," when in reality it was price-fixing. They also insisted that those with access to
28 this information keep it confidential.

124. In an email dated March 19, 2007, a Samsung manager wrote to his counterparts at Panasonic, “[w]e want to talk about your safety technology on HRL and PSS [types of batteries]. So please call Mr. Yeo. His Cell phone number is XX-XX-XXXX-XXXX.” Mr. Yeo’s position at Samsung, however, had nothing to do with safety—it was to set battery prices.

125. The next day, Samsung executive H.K. Yeo sent an internal email, dated March 20, which laid out the contours of the price-fixing plan he had worked out with Panasonic:

1. Request for price increase starting this week

2. Increase (Proposal) Increase: Start 10~13% and hope to end with 8~10% . (Bottom).

[. . .]

3. Hope to apply to all models

[. . .]

4. Time to apply the increase: starting 4/1

5. Other company trend

- Sanyo: hopes for 8~10%

- Sony: about 10% (will end with less than 10% since starting with 10%)[.]

126. Joon Hoo Lee, LG’s Notebook Battery Vice President, wrote in a coded April 4, 2007 email that he had discussed the proposed price increase with a representative of ‘S’ company, understood to be Samsung. In an email that same day, Lee told Jae Gil Kim of LG to “please make sure that you maintain internal and external security regarding the email, so that people other than the recipients on the list cannot access the email.”

127. Later that month, at an April 26, 2007 meeting between LG and Sanyo, the companies “both had the same idea that device makers should share the burden of the sudden price rise of raw materials and that price adjustment would be possible for cylindrical batteries,” as stated in an LG email summary. The LG email further noted that “[i]t was further decided that both would keep exchanging ideas and [that Sanyo] would make Mobile Energy Division leader Mr. Itoh contact LGC Battery Division leader for mutual cooperation.”

128. Defendants then exchanged numerous calls and emails throughout the spring and summer of 2007 as they coordinated the implementation of their price-setting plan. For instance, in an internal email dated June 20, 2007, Samsung's Hee Joung Moon, summarizing a call he had with Sony, stated: "[o]pinion that Sony is planning 6MT [type of Lithium Ion Battery] Ramp up in August . . . and 3Q pricing has been agreed upon at about JPY [Japanese yen] 320 range. 4Q pricing has not been discussed, and for Sony, as long as the cobalt price is maintained at the current price level, plan is in progress to [s]tay 3Q pricing in 4Q also."

129. A set of notes summarizing Samsung's semi-annual meetings with the Japanese Defendants in July 2007, including NEC, Sony, Sanyo, GS Yuasa, and Panasonic, reveals that Defendants succeeded in increasing Lithium Ion Battery prices: "An upward trend in market sales price continues due to cobalt price increase and the common view on shortage in supply of cylindrical type."

130. In June 2007, representatives from Defendants Samsung, Sanyo, and Panasonic met together at a restaurant in the Shinagawa district of Tokyo, so as to avoid detection by others. The participants discussed the successful early 2007 price increase and plotted to raise prices again later that year. Defendants also sought to establish a bottom-line selling price. Once the three Defendants agreed on the terms of this latest price increase, SDI agreed to transmit the details to LG, while Sanyo and Panasonic agreed to share the details with the other Japanese manufacturers. Defendants agreed to discuss implementation of the price increase via telephone calls.

131. Defendants continued to meet throughout 2007 to exchange production capacity, sales volume, and customer information, and continued to make other anticompetitive agreements. Summary notes from a round of meetings with Japanese Defendants Sony, Sanyo, GS Yuasa, and Panasonic in March 2007 taken by a Samsung representative state, under a bullet point entitled "Aggressive Pricing Policy Required to Increase Profitability," that:

Every company showed a keen sensitivity to increasing profitability[.] Especially Sanyo and Matsushita [Panasonic] have strong interest in achieving profitability in lithium ion business due to deteriorating profitability in nickel-hydrate battery.

1 Considering supply and demand status based on industry's
 2 conservative plant expansion, aggressive proposal and adjustment on
 3 market price while placing emphasis on achieving profitability are
 required.

4 132. In order to ensure that the agreed price increase was effectuated, Defendants
 5 discussed with each other their upcoming negotiations with specific customers. For example, on
 6 October 1, 2007, Hee Jung Moon of Samsung held a call with Mr. Negi of Sony regarding 2008
 7 Lithium Ion Battery price negotiations with a common customer—Sony Ericsson Mobile
 8 Communications (“SEMC”). During the call, Moon and Negi, ostensible competitors, strategized
 9 about how they would “sell” the proposed price increases to SEMC. Then, having agreed on their
 10 SEMC strategy, they had a follow-up call on October 5 to formulate a plan for selling the price
 11 increase to Bosch, another common customer.

12 133. On October 5, 2007, LG and Samsung explicitly agreed on the price increase. A
 13 letter confirming this increase provides: “Dear Vice President Lee [LG], The price agreed with
 14 [Samsung] is as follows. . . .”

15 **5. Defendants continued to maintain artificial prices in 2008 by using the**
 16 **rise of raw material prices as a pretext**

17 134. Throughout 2008, Defendants continued to meet frequently and discuss production
 18 capacity, supply and demand, customer and competitor movements, and market trends. During
 19 this period, they also agreed to implement specific battery price increases.

20 135. For example, on January 28, 2008, representatives from LG and Sanyo met at
 21 Narita airport in Japan where they discussed another round of battery price increases and the
 22 formula they would use to effectuate those increases. LG was represented by Joon Ho Lee (Vice
 23 President in charge of Notebook business), Jae Min Park (Notebook CRM team leader), and Deuk
 24 Yong Kwon (Notebook CRM team). General Manager Ikegami participated on behalf of Sanyo.

25 136. At the same time, in early 2008, the price of cobalt began to climb again. LG's
 26 contemporaneous discussions with Samsung demonstrate in detail Defendants' plan to tie the price
 27 increase to the rise in the price of cobalt. This plan became clear from an internal LG email dated
 28 February 11, 2008:

1 - Effective date: March 1 (March/April/May)

2 - Price increase: by 10% minimum

3 - [Samsung's] Rationale: It is inevitable to increase the price at least by
4 10%, because although in the past increase the Cobalt price was \$30,
5 Cobalt price of \$40 is applied to months of March/April/May (three
6 months). Considering current Cobalt price increases, [Samsung] plans to
7 mention in advance that additional price increase is unavoidable for
8 June/July/August (three months). (\$40 -> \$50)

9 (Therefore, it plans to raise price twice, first by 10% at minimum for
10 March/April/May, and second by 10% at minimum for
11 June/July/August).

12 - [Samsung's] future schedule: [Samsung] will visit its Taiwan customers
13 from February 13 to February 15 to explain the plan above and ask for
14 their understanding.

15 - LG []'s future schedule: After LG [] also gives a notice to [Samsung], it
16 will notify its customers of the price increase, and start to raise price from
17 March 1. However, LG [] needs to raise the price by about 12%.

18 LG [] will say that it is inevitable to additionally raise the price 2% more
19 compared to other competitors, due to higher production costs compared
20 to [Samsung's] capacity.

21 137. Communications in late February 2008 confirmed Defendants' intention to raise
22 prices. For example, in an internal LG email thread dated February 27, 2008, LG noted that
23 Samsung "reconfirmed" the planned price increase, and "said that [Samsung] does not have any
24 problem with raising the price according to the contents mentioned last time." In a February 29,
25 2008 meeting between LG and Panasonic, the parties discussed a plan to increase prices, with LG
26 planning to follow up with Panasonic General Manager Matsumoto "regarding the price increase
27 level."

28 138. Defendants' collusive communications in early 2008 bore fruit later that year. On
May 16, 2008, LG learned from Samsung that Samsung agreed to increase prices for Lithium Ion
Batteries effective June 2008. Samsung also agreed that it would lead the increase. LG directed
its employees to share the information with its overseas branch offices. An internal email among
LG employees dated May 16, 2008 referenced information "acquired from the Korean S Company

1 [Samsung],” and stated that Samsung is “[p]lanning to increase prices in June (approximately by
2 US\$0.16/Cell).”

3 139. By the summer of 2008, the major suppliers had signed onto the plan and had
4 increased their prices. An LG email dated June 10, 2008 confirmed that Sony would increase
5 Lithium Ion Battery prices as of June 15, 2008, and that Samsung, Panasonic, and Sanyo would
6 implement corresponding price increases by July 1, 2008. Meeting minutes from a June 2008 LG
7 meeting involving LG’s offices in the United States contained a chart that included further detail
8 on these price increases.

9
10 **6. The conspiracy continued through 2008, even after the price of raw materials began to fall**

11 140. As the summer of 2008 wore on, the price of cobalt began to drop. Defendants,
12 who had sold the price increase to their customers on the basis of the rising price of cobalt, were
13 faced with the task of getting their customers to acquiesce to higher Lithium Ion Battery prices
14 when the price of cobalt was falling.

15 141. On August 8, 2008, representatives of LG and Panasonic conducted two meetings,
16 one at the Lexington Hotel and another at a restaurant over dinner. Minutes from the dinner
17 meeting show that falling cobalt prices were foremost in the minds of the representatives who
18 talked about how they would “sell” this round of price increases to customers when the price of
19 cobalt was no longer rising:

20 Since Cobalt price is falling and battery demand/supply normalization is
21 expected soon, customers’ growing pressure on price decrease is
22 anticipated. In the case of [Panasonic], since it engages in negotiation
23 with customers with its price-related mechanism, 4Q price drop derived
24 from falling Cobalt price is inevitable, and it is hard to break the rule just
to maintain trust with customers. However, even if the price falls, plans
to minimize the drop by developing internal logic.

25 142. Later that year, at a meeting on October 10, 2008 at the Narita Airport in Japan,
26 representatives of LG and Sanyo discussed production capacity as well as pricing. While Sanyo’s
27 fourth-quarter adjustment was based on the previously agreed cobalt formula, Defendants realized
28

1 that this adjustment needed to be re-worked: “Cobalt’s standard price fell by \$4 from \$49 to \$45,
2 so price adjustment range is not that great.”

3 143. Throughout these discussions, Defendants took steps to make sure that falling
4 cobalt prices did not erode the collusive price of Lithium Ion Batteries. In an email describing the
5 meeting between LG and Sanyo on October 10, 2008, LG reported that the companies
6 “[e]xchanged opinions on preventing activities to destroy prices within the market, and for that
7 matter, [were] willing to maintain and expand appropriate company-to-company communication
8 about related market information.”

9 144. Defendants understood that, to continue selling Lithium Ion Batteries at inflated
10 prices, they would have to abandon their original pricing formula which tied the battery price
11 increase to increases in the cost of cobalt. At a meeting in Osaka, Japan on December 8, 2008,
12 between LG Vice President Lee and Panasonic General Manager Matsumoto, among others, the
13 two companies discussed creating a new pricing formula:

14 Both companies agreed that they should defend the current selling price
15 because it is hard to secure volume through price cutting. Since
16 Panasonic made the cobalt price of \$18/lb as the reference value when it
17 first raised the price, it will adjust the selling price by using the current
18 formula until the price of cobalt becomes \$18/lb. It said that when the
19 price of Cobalt is under \$18/lb, it would consult customers with a new
20 formula, adding that they are now studying a new formula.

21 145. Defendants continued their collusion and, as a result, prices remained artificially
22 inflated until the last quarter of 2008.

23 **7. Notwithstanding the worldwide economic downturn in late 2008,**
24 **Defendants continued to manipulate Lithium Ion Battery prices**

25 146. In the face of the economic downturn in late 2008, Defendants continued their
26 collusive efforts to maintain battery prices at an artificially high level, including continuing to
27 meet and exchange competitively sensitive information with each other.

28 147. For example, on October 13, 2008, LG’s John Ho Lee sent an email to LG
Executive Vice President Jungoh Kim that reported on a meeting in Osaka, Japan the previous
week between LG and the head of sales for Sanyo: “We exchanged opinions on preventing

1 activities to destroy price mechanism within the market, and for that matter, both are willing to
2 maintain and expand company-to-company communication about related market information.”

3 148. Similarly, on December 5, 2008, NEC and LG met at NEC’s offices in Tokyo to
4 share information regarding capacity and market trends.

5 149. In 2009, in connection with a Lithium Ion Battery bid being submitted to HP during
6 a procurement event known as an e-auction, LG and Samsung coordinated their bids with each
7 other to manipulate the outcome of the e-auction. Rather than submitting the required “blind bid,”
8 LG first consulted with Samsung and submitted a complementary bid that would permit both LG
9 and Samsung to get a share of the business being awarded by HP without having to submit a
10 competitively low bid.

11 150. Defendants’ collusive conduct continued into 2010 when Apple attempted to
12 purchase a specific type of Lithium Ion Battery for use in its popular iPad. Initially, LG and
13 Samsung both contemplated selling Lithium Ion Batteries to Apple in the low \$0.40 range. Rather
14 than compete with each other, Young Sun Kim of LG Chem, Ltd. directed “Donny” Lee of LG
15 Chem America, Inc. to speak to his counterpart at Samsung (who was also in the United States at
16 the time). As a result of these communications, the two companies agreed to hold firm at \$0.50.
17 Samsung also shared its “4Q roadmap” with LG.

18 151. Defendants’ illegal conduct continued until at least May 2011, when the DOJ’s
19 investigation was made public. For example, in February 2011, Samsung and LG worked together
20 to manipulate another HP e-auction. Because “only rankings are displayed, and it’s impossible to
21 check competitors prices” during an auction, these Defendants worked together to develop a
22 sophisticated bid-rigging plan to “nullify” the e-auction and, thus, return to their practice of
23 submitting bids that had been fully coordinated in advance. An internal LG email dated February
24 8, 2011 states that Samsung “consented to the nullification of e-auction, and said that the Bottom
25 [price] discussed between the two companies is \$16.”

26 152. Internal LG emails from March 2011, at least one of which contains coded
27 references to competitors, indicate that competitive information regarding pricing was still being
28 collusively exchanged.

153. Defendants' conspiracy to fix, raise, stabilize, and maintain Lithium Ion Battery prices continued undeterred throughout the Class Period. The initial "cooperation" and collusive exchanges of competitively sensitive information that enabled Defendants to fix prices evolved into specific price agreements, bid rigging, supply restrictions, and other conduct to manipulate prices of Lithium Ion Batteries during the Class Period.

D. The Price Movements of Lithium Ion Batteries During the Class Period Are Consistent With Collusion, Not Competition

154. Defendants' regular, collusive communications, agreements, and other conduct over more than a decade, as alleged above, set forth in detail Defendants' acts in furtherance of their conspiracy. As explained in this subsection and subsections VI.E and VI.F below, pricing behavior, capacity utilization, and the structural and other characteristics of the Lithium Ion Battery market further demonstrate the existence of Defendants' conspiracy.

155. Many analysts predicted that, given technological changes and the economics of the marketplace, Lithium Ion Battery prices would fall during the Class Period. In fact, prices not only failed to decline throughout most of the Class Period, they rose.

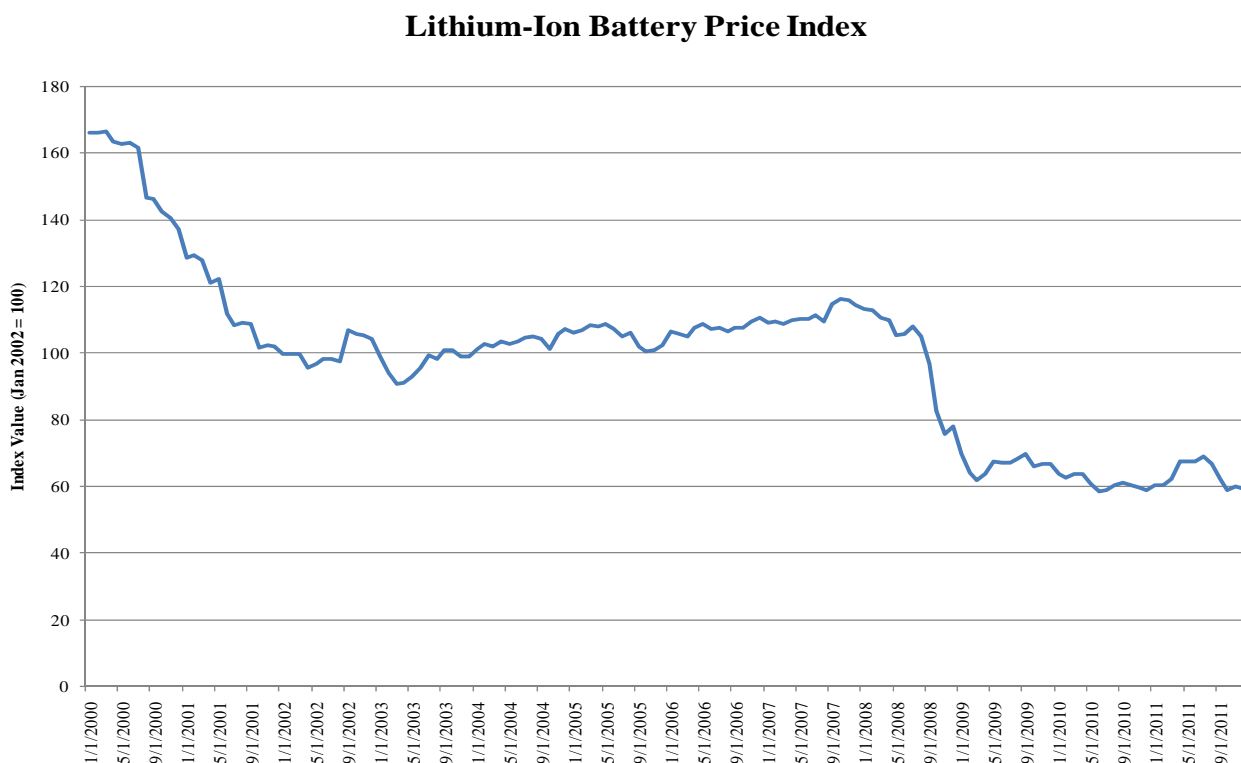
156. As shown below, the initial period, from 2000 to 2002, was marked by declining prices corresponding to the entry of Korean firms into the Lithium Ion Battery market. Nonetheless, as a result of Defendants' collusive communications, Lithium Ion Battery prices declined less rapidly than they would have in a competitive market. By 2002, prices stabilized, and then started to increase from 2003 to 2008. In late 2008, Lithium Ion Battery prices declined along with the demand shock of the global recession. However, Defendants quickly stabilized this decline. By mid-2009, prices again were relatively flat until the DOJ investigation was publicly announced in May 2011, at which point prices dropped. The graph below depicts these price movements.

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Source: Bank of Korea (converted to USD using exchange rates in Bloomberg).

157. Numerous technical studies undertaken throughout the 2000s predicted that scale economies and learning curves would act to lower cost as production volumes expanded. For example, one study concluded, “while the NiMH [nickel metal hydride] battery is nearing fundamental practical limits . . . lithium ion batteries are still improving. With continued improvements in charge storage capability, lithium-ion’s advantage will become more pronounced with the passage of time. . . . Though this trend has slowed somewhat in recent years with the maturation of cobalt- and nickel metal-oxide based lithium-ion batteries, other materials have the potential to allow for continued growth. . . .”⁵ The availability of alternative materials for Lithium Ion Battery composition allowed for continued increases in energy density during the Class Period. This trend of increasing energy density is anticipated to continue into the future. The

⁵ Kromer, M. A., & Heywood, J. B., *Electric Powertrains: Opportunities and Challenges in the U.S. Light-Duty Vehicle Fleet*, Cambridge, MA: Sloan Automotive Laboratory, Massachusetts Institute of Technology (2007), available at http://web.mit.edu/sloan-auto-lab/research/beforeh2/files/kromer_electric_powertrains.pdf, at p. 36.

1 improved safety and energy characteristics of these materials leads analysts to forecast that
 2 Lithium Ion Batteries will overtake NiMH as the predominant battery technology in that product
 3 market, opening up additional opportunities for economies of scale.

4 158. The authors of a 2006 study observed that “[i]n addition to this fundamental
 5 advantage with respect to specific energy and power, lithium ion batteries also offer the potential
 6 for lower cost as the technology matures and production volumes increase. Although more
 7 expensive than NiMH batteries today, Lithium Ion Batteries scale more readily to high volume
 8 production hence have greater potential for cost reduction.”⁶

9 159. Basic economic principles support the notion that, in a competitive market, these
 10 increasing volumes of production should have been associated with continuing price declines for
 11 Lithium Ion Batteries.

12 160. A 2004 industry report forecasted that prices would decline by 7% per year
 13 between 2004 and 2008. Instead, because of the actions of Defendants and their co-conspirators,
 14 average prices for Lithium Ion Batteries rose by almost 11% between January 2004 and January
 15 2008. As shown in the graph below, actual prices did not experience a decline until late 2008 and
 16 early 2009, when the economic recession took hold.

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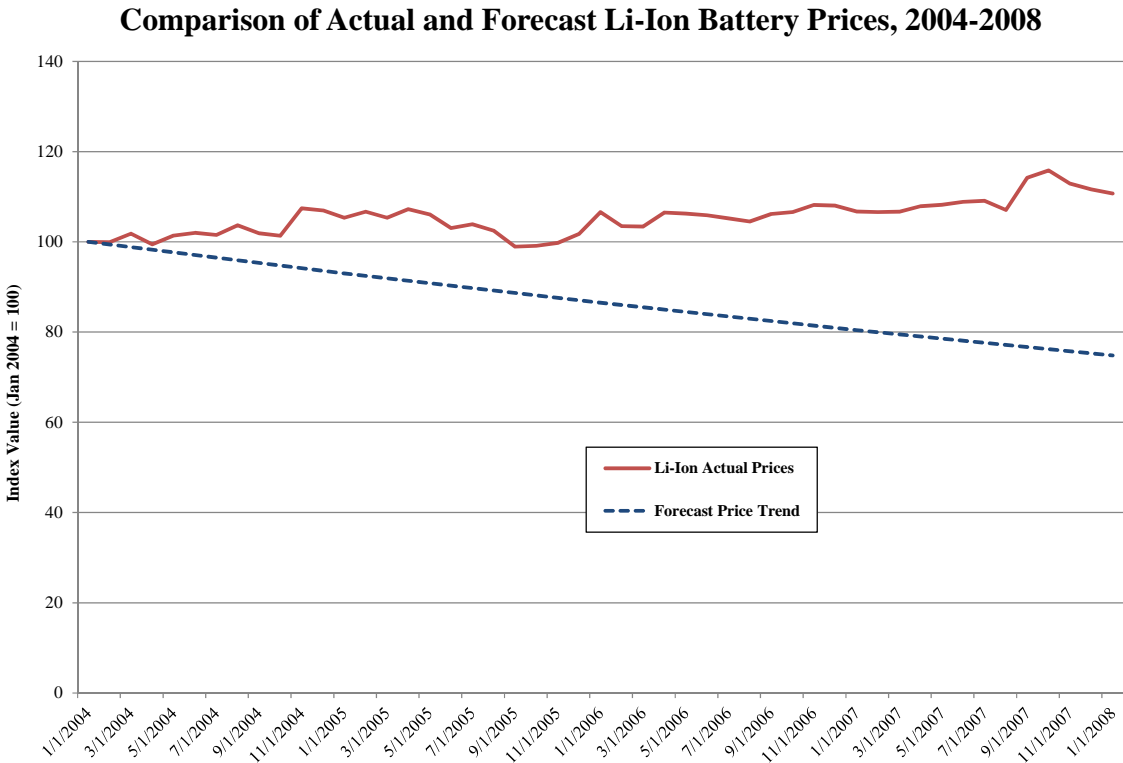
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27 ⁶ *Id. citing* Miller, T. Hybrid Battery Technology and Challenges. Technology Review’s Emerging
 28 Technology Conference, 9/28/2006.

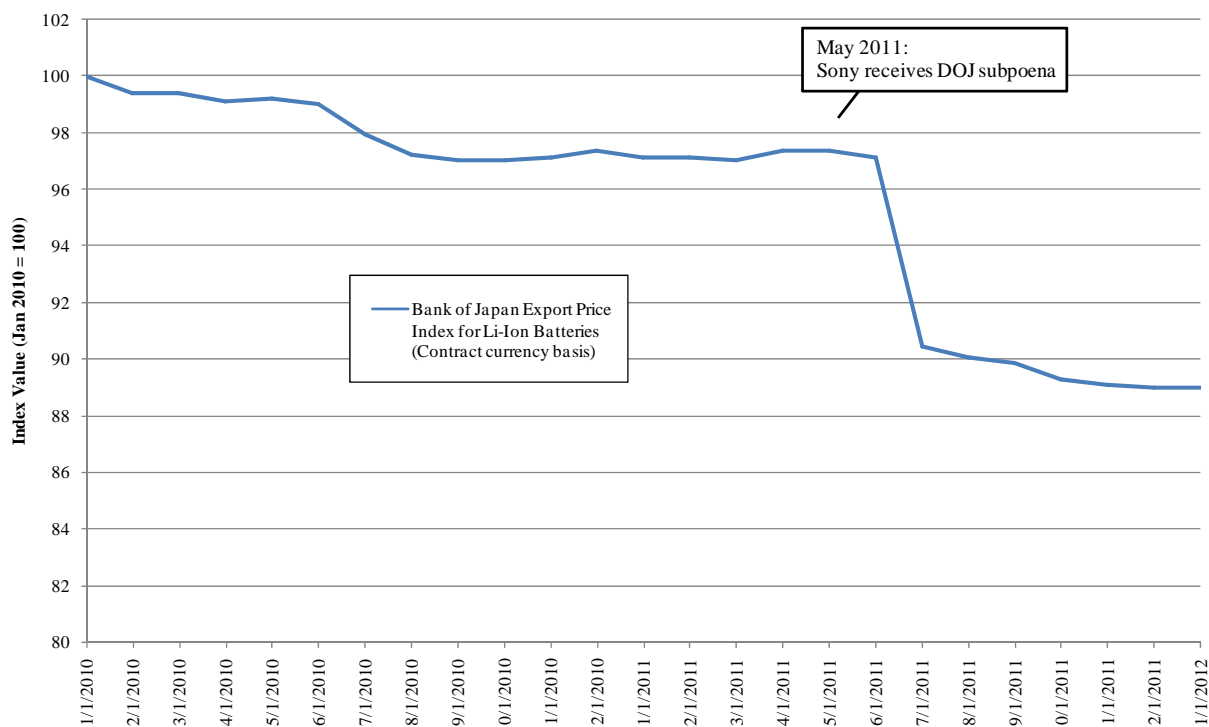


Source: Bank of Korea; Bloomberg; Avicenne.

161. Even following the price drops occasioned by the downward demand of the recession, Lithium Ion Battery prices stabilized—yet again—until shortly after May 3, 2011, when Sony and other suppliers received a subpoena from the DOJ for information on competition in rechargeable batteries. Upon Sony’s public announcement of having received a subpoena, Lithium Ion Battery prices dropped significantly, as shown below. Average prices fell by nearly 7% between June and July 2011, and continued to decline in subsequent months through the end of 2011.

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Prices of Lithium-Ion Batteries Surrounding Announcement of DOJ Investigation



Source: Bank of Japan.

E. Defendants' Capacity Utilization During the Class Period is Consistent with Collusion, Not Competition

162. While Defendants expanded their production capacity during the Class Period, in the latter years a significant amount of that capacity was under-utilized, but prices remained stable. These circumstances are consistent with Defendants' collusive behavior rather than a competitive market.

163. In early 2008, in anticipation of long-term growth in hybrid-electric and electric vehicle production, many Defendants announced plans to expand their Lithium Ion Battery production capacity. In Japan, Panasonic announced that it would raise its capacity by 83%, Sony announced plans to raise its capacity by 80%, and Sanyo announced that it would raise its capacity by 36%. Among the Korean manufacturers, Samsung announced plans to raise its capacity by 93% and LG announced that it would raise its capacity by 86%.

1 164. This capacity expansion was ill-timed, because the fourth quarter of 2008 saw the
 2 onset of a worldwide economic crisis and a corresponding decline in demand for Lithium Ion
 3 Batteries. By the first quarter of 2009, Defendants' shipments of Lithium Ion Batteries dropped
 4 significantly from mid-2008 highs. Industry analysts predicted that Defendants' new capacity,
 5 combined with lower demand for consumer electronic products, would result in an oversupply of
 6 Lithium Ion Batteries. But despite the anticipated glut and decreased demand, prices ultimately
 7 stabilized and began to increase.

8 165. To stem the late 2008–09 price decline due to capacity expansion during an
 9 economic crisis, Defendants cut production in a coordinated fashion. As a result, prices for
 10 Lithium Ion Batteries stabilized by the end of 2009.

11 166. Basic economic principles teach that over time, prices tend to decrease as the
 12 capacity available to supply those products increases relative to total demand. Conversely, when
 13 capacity is constrained, competitively set prices may increase rapidly. The figure below compares
 14 Lithium Ion Battery prices to total shipments and capacity utilization for model 18650 batteries,
 15 the most common type of cylindrical Lithium Ion Battery.

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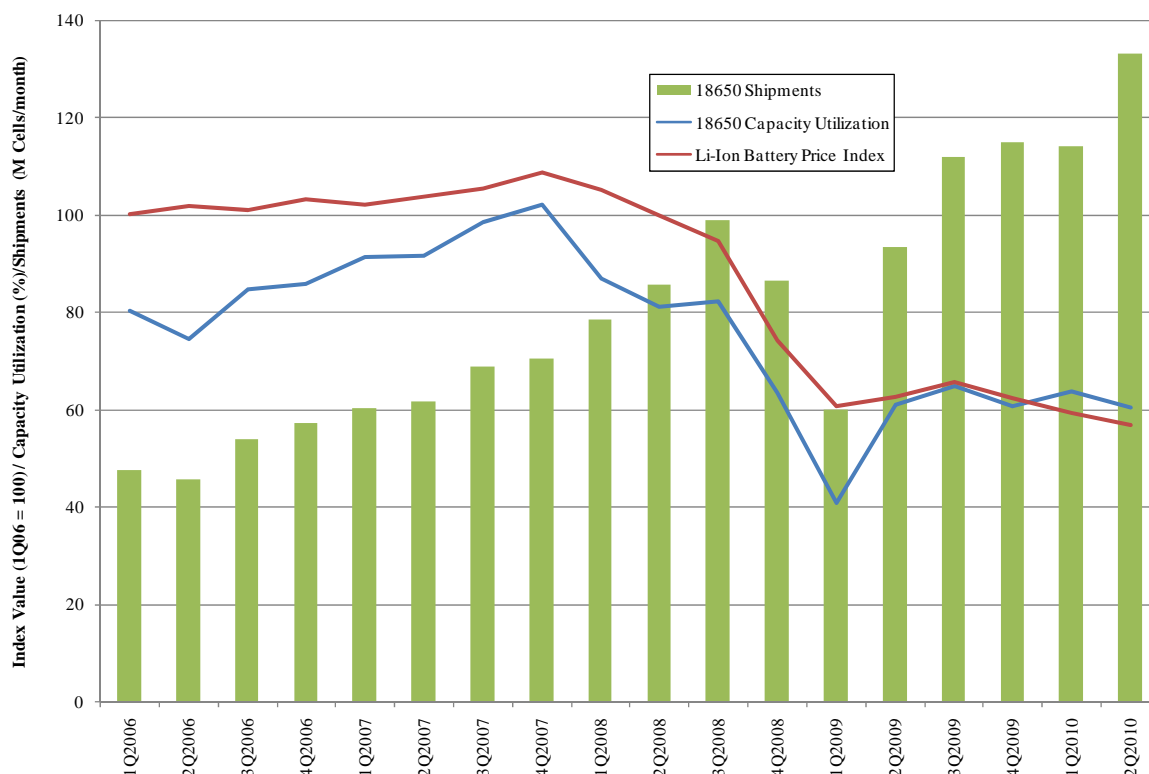
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Li-Ion Battery Prices and Capacity Utilization



Source: IIT LIB Market Bulletins; Bank of Korea (values converted to USD using exchange rates from Bloomberg).

167. When demand for Lithium Ion Batteries decreased at the onset of the recession in 2008, shipments, pricing, and capacity utilization all decreased, as shown above. Yet, by the beginning of 2009, despite under-utilization of existing (and new) capacity, Lithium Ion Battery pricing stabilized. After the first quarter of 2009, shipments returned to their pre-recession growth path, but capacity utilization remained at levels below pre-recession levels.

168. Price stability when capacity is under-utilized is not consistent with a competitive market. In a competitive market, firms would be expected to increase their individual capacity utilization rates to gain market share, which would have caused further price declines. Instead, the price of Lithium Ion Batteries increased and then remained relatively flat with capacity remaining under-utilized. Such behavior is much more consistent with market collusion rather than with a freely competitive market.

F. The Structure and Characteristics of the Lithium Ion Battery Market, Together with Other Factors, Render the Conspiracy Economically Plausible

169. In addition to the numerous acts in furtherance of Defendants' conspiracy to fix, raise, stabilize, and maintain the price of Lithium Ion Batteries during the Class Period, the structure and other characteristics of the Lithium Ion Battery market in the United States are conducive to a price-fixing agreement, and made collusion particularly attractive to Defendants.

170. Specifically, the Lithium Ion Batteries market (1) has high barriers to entry and (2) is concentrated. In addition to these market characteristics, (3) the existence of government investigations into anticompetitive conduct in this market, (4) Defendants' history of colluding to fix prices for critical components of consumer electronics, and (5) the existence of trade associations and other common forums, all support and facilitate the existence of the conspiracy Plaintiffs allege in this Complaint. Accordingly, the conspiracy was economically plausible.

1. The Lithium Ion Batteries market has high barriers to entry

171. A collusive arrangement that raises product prices above competitive levels would, under basic economic principles, attract new entrants seeking to benefit from the supracompetitive pricing. Where, however, there are significant barriers to entry, new entrants are less likely. Thus, barriers to entry help to facilitate the formation and maintenance of a cartel.

172. During the Class Period and continuing today, substantial barriers impede entry into the Lithium Ion Batteries market. A new entrant into the market would face costly and lengthy start-up costs, including multi-million dollar costs associated with research and development, manufacturing plants and equipment, energy, transportation distribution infrastructure, skilled labor, long-standing customer relationships, safety and quality assurance, and reduction of high failure rates.

173. Defendants themselves acknowledged the substantial costs of entering the market. For example, during a November 21, 2002 meeting with LG, Yasuhiro Hosozawa, the Senior General Manager of the PCC Business Division for Sony Corporation's Core Technology & Network Company, recognized that "this is a business requiring a huge cost including R&D cost because technological capability is necessary to do this business." Mr. Hosozawa stated that the

enhanced performance of TFT-LCD technology was only “possible after 30 years of research and development, and as for Li-Ion, it’s only been 10 years, so there must be continued R&D efforts.” LG’s Senior Manager Seok Hwan Kwak agreed with Mr. Hosozawa’s assessment.

174. Late-coming Chinese battery suppliers limited their production plans and product lines due to the high cost of entry. For example, in 2007, Chinese supplier Tianjin Lishen Battery Joint-Stock Co., Ltd. (“Lishen”) was not aggressive in entering the cylindrical battery business, because it could not secure uniform product quality without a substantial financial investment in equipment. Lishen already had postponed expanding into cylindrical batteries when LG began manufacturing Lithium Ion Batteries in Nanjing in 2005.

175. One of the biggest barriers to entry into the Lithium Ion Battery market is the high cost of fabrication plants (“fabs”), where the batteries are manufactured. In 2011, Panasonic announced that it planned to build a new fab in China that would cost up to \$366 million. Also in 2011, LG announced that it planned to build two new fabs in South Korea and the United States that would cost \$1.84 billion. In 2012, Samsung SDI announced that it would invest over \$700 million over the next five years to upgrade its Malaysian factory in order to manufacture Lithium Ion Batteries.

176. In addition to the large costs of building a plant, given the nature of the materials used in Lithium Ion Batteries, any new entrant would be required to comply with environmental regulations in whatever jurisdiction such plant is built. Compliance would require extensive testing and the receipt of government approvals, all of which would take many years.

177. Defendants also own multiple patents for Lithium Ion Batteries. These patents place a significant and costly burden on potential new entrants, which must avoid infringing on the patents when entering the market with a new product. Samsung, Panasonic, Sony, Sanyo, and LG Chem account for more than 80% of the patents filed in the United States for Lithium Ion Batteries.

2. The market for Lithium Ion Batteries is concentrated

178. A concentrated market is more susceptible to collusion and other anticompetitive practices. The Lithium Ion Batteries market was concentrated during the Class Period. In fact,

1 throughout the Class Period, Defendants together have maintained extremely high market shares,
2 ranging from 73% to 95%.

3 **3. Government investigators are targeting certain Defendants in**
4 **connection with fixing the price of rechargeable batteries**

5 179. A globally coordinated antitrust investigation is taking place in at least the United
6 States and Europe, aimed at suppliers of Lithium Ion Batteries.

7 180. Around May 2011, Sony Corporation disclosed in its Form 20-F for the fiscal year
8 ending March 31, 2011 that its wholly-owned United States subsidiary, Sony Electronics, Inc.,
9 “received a subpoena from the United States Department of Justice (“DOJ”) Antitrust Division
10 seeking information about its secondary battery business.” Sony further disclosed:

11 Sony understands that the DOJ and agencies outside the United
12 States are investigating competition in the secondary batteries
13 market. Based on the stage of the proceedings, it is not possible to
14 estimate the amount of loss or range of possible loss, if any, that
might result from adverse judgments, settlements or other
resolutions of this matter.

15 181. Around August 20, 2012, LG confirmed that it also was the target of the DOJ’s
16 investigation.

17 182. News articles have confirmed that, in addition to Sony and LG, Samsung and
18 Panasonic are also under investigation by the DOJ for price fixing with respect to the sale of
19 rechargeable batteries.

20 183. It is significant that Defendants’ anticompetitive behavior is the subject of a
21 criminal grand jury investigation being conducted by the DOJ. For the DOJ to institute a grand
22 jury investigation, a DOJ Antitrust Division attorney must believe that a crime has been
23 committed and prepare a detailed memorandum to that effect.⁷ Following a review of that
24 memorandum, the request for a grand jury must be approved by the Assistant Attorney General for
25 the Antitrust Division, based on the standard that a criminal violation may have occurred.

26 _____
27 ⁷ See Antitrust Grand Jury Practice Manual, Vol. 1, Ch. I.B.1 (1991), *available at*
28 <http://www.justice.gov/atr/public/guidelines/206542.htm> (last accessed May 1, 2013).

184. That the DOJ Antitrust Division investigation is criminal, as opposed to civil, is significant as well. The Antitrust Division’s “Standards for Determining Whether to Proceed by Civil or Criminal Investigation” state: “In general, current Division policy is to proceed by criminal investigation and prosecution in cases involving horizontal, *per se* unlawful agreements such as price fixing, bid rigging and horizontal customer and territorial allocations.”⁸ Accordingly, the existence of a criminal investigation into the market for Lithium Ion Batteries supports the existence of the unlawful conspiracy alleged in this Complaint.

4. Defendants have a history of colluding to fix prices for critical components of consumer electronics

185. Many Defendants and their affiliates have a long history of criminal collusion and are either currently involved in worldwide competition authority investigations into other technology-related markets, or have been convicted of participating in price-fixing cartels involving technology-related products. Much of the illegal conduct to which Defendants or their affiliates have admitted took place during the Class Period identified in this Complaint.

186. A notebook computer contains four key pieces of hardware: a dynamic random access memory (“DRAM”) chip, a thin-film transistor liquid crystal display (“TFT-LCD”) screen, an optical disk drive (“ODD”), and a Lithium Ion Battery. Several Defendants and/or their affiliates have pled guilty to fixing the prices of the first three of these components, and the DOJ is investigating whether to bring criminal price-fixing charges for the fourth component—Lithium Ion Batteries.

187. Around October 2005, Samsung Electronics Company, Ltd. and Samsung Semiconductor, Inc., affiliates of the Samsung Defendants, pled guilty and paid a \$300 million fine for “participating in an international conspiracy to fix prices in the [DRAM] market” from approximately April 1, 1999 through June 15, 2002. In addition, six Samsung executives pled

⁸ See Antitrust Division Manual, Chapter III.C.5, III-12 (Nov. 2012), *available at* <http://www.justice.gov/atr/public/divisionmanual/chapter3.pdf> (last accessed May 1, 2013).

1 guilty to participating in the conspiracy with respect to DRAM. Each paid a \$250,000 criminal
2 fine and served a prison sentence in the United States ranging from seven to fourteen months.

3 188. In November 2008, LG Display Co., Ltd. (“LG Display”), an affiliate of the LG
4 Defendants, pled guilty and paid a \$400 million fine to the United States, in connection with its
5 participation in a worldwide conspiracy to fix the prices of TFT-LCD screens during the period
6 from September 2001 through June 2006. At the time, LG Display paid the second-highest fine
7 ever imposed by the Antitrust Division of the DOJ. In addition, in April 2009, an executive of LG
8 Display pled guilty to participating in the global TFT-LCD conspiracy from September 2001
9 through June 2006, served 12 months in a federal prison, and paid a \$30,000 criminal fine. In
10 February 2009, another LG Display executive pled guilty to participating in the global conspiracy
11 with respect to TFT-LCDs from September 2001 through December 2006.

12 189. In March 2009, Hitachi Displays, Ltd., an affiliate of the Hitachi Maxell
13 Defendants, pled guilty and paid a \$31 million fine for participating in that same conspiracy
14 during the period from April 2001 through March 2004.

15 190. Around March 2011, Defendant Samsung SDI Co., Ltd. pled guilty and paid a \$32
16 million fine for participating in a “global conspiracy to fix prices, reduce output, and allocate
17 market share of color display tubes, a type of cathode ray tube used in computer monitors and
18 other specialized applications” from approximately January 1997 through at least March 2006.
19 Also in March 2011, the Korean Fair Trade Commission issued a public report that identified
20 Samsung employees who participated in collusive meetings and agreements with competitors in
21 the cathode ray tube industry. Several of the identified employees became senior executives in
22 Samsung’s Lithium Ion Battery business.

23 191. In September 2010, Defendant Panasonic Corporation pled guilty and paid a \$49.1
24 million fine for participating in a conspiracy to “suppress and eliminate competition by fixing
25 prices to customers of household compressors” during the period October 14, 2004 through
26 December 31, 2007.

27 192. In September 2011, Hitachi-LG Data Storage, Inc. (a joint venture between
28 Japanese company Hitachi, Ltd. and Korean company LG Electronics, Inc.) pled guilty and paid a

1 \$21.1 million fine for participating in various bid-rigging and price-fixing conspiracies for ODDs
 2 during the period from June 2004 through September 2009.

3 193. The foregoing pattern of anticompetitive practices in various technology-related
 4 markets is illustrative of Defendants' corporate conduct, which has included illegal activity aimed
 5 at generating profits at the expense of their customers.

6 **5. Trade associations and other common forums facilitated Defendants'** 7 **collusion**

8 194. Defendants are members of several battery trade associations, which they used to
 9 facilitate their conspiratorial conduct.

10 195. Panasonic, Sanyo, Sony, and Hitachi Maxell, and a Samsung affiliate are all
 11 members of the Battery Association of Japan ("BAJ"). The BAJ's stated purpose is to "promote[]
 12 research and development of batteries and battery applied products." Among its primary tasks is
 13 participating in international working groups and conferences "in order to exchange information
 14 and promote international collaboration." Samsung and LG are members of the Battery R&D
 15 Association of Korea ("KORBA"), which Defendants described as "the counterpart of the BAJ."

16 196. Defendants used the BAJ to facilitate collusive price increases. For example, in a
 17 March 2, 2004 high-level meeting between Sony and LG, Sony revealed to LG that it had "pushed
 18 BAJ (Battery Association of Japan) to help with this issue [*i.e.*, raising prices], and BAJ will ask
 19 companies for cooperation through various channels." Principals at this meeting from Sony
 20 included Yutaka Nakagawa (Deputy President of Micro Systems Network Company ("MSNC")
 21 and President of Energy Company, the division of Sony that produces Lithium Ion Batteries),
 22 Hirokazu Kamiyama (Division Leader of MSNC), and Toshiaki Naito (General Manager of
 23 cellular battery division). Principals for LG included Soon Yong Hong (Executive Vice President
 24 and President of I&E Materials), Director Myung Hwan Kim (Battery Division leader), and Senior
 25 Manager Seok Hwan Kwak.

26 197. Defendants also used the trade associations to cooperate with each other and inhibit
 27 other entrants into the Lithium Ion Batteries market. For instance, during a top management
 28 meeting in July 2005, Mitsuru Honma, the group leader for Sanyo's division responsible for

1 rechargeable batteries, and LG's CEO Noh Ki-ho discussed using BAJ and KORBA to cooperate,
 2 facilitate exchanges of technology, and establish safety standards. Similar discussions were held
 3 during a September 2005 top meeting between Toru Ishida, the President of MBI, and LG's Mr.
 4 Noh. At the time these meetings occurred, Mr. Ishida was the President of the BAJ, Mr. Honma
 5 was the Vice President of the BAJ, and Mr. Noh was the CEO of KORBA. LG's minutes of these
 6 meetings explain that setting safety standards not only protected customers, but also enabled
 7 Defendants to "prevent[] Chinese companies . . . from entering the market with low prices alone."

8 198. Defendants continued to use the trade associations to prevent new market entrants
 9 and increase prices throughout the Class Period. Notes of a February 2008 meeting between
 10 senior executives of Panasonic and LG refer to Panasonic General Manager Matsumoto as saying,
 11 "Battery regulations, such as BAJ, can ultimately stop new makers, whose product qualities are
 12 not stable, from entering the market, while emphasizing safety technologies' importance to
 13 customers and helping the cell makers receive premium prices for the technologies. Therefore, it
 14 [Panasonic] is aggressively supporting the activities, and asked us [LG] to actively join the
 15 moves."

16 **VII. CLASS ACTION ALLEGATIONS**

17 199. Plaintiffs brings this class action pursuant to Federal Rules of Civil Procedure 23(a)
 18 and 23(b)(2) and (b)(3), on their own behalf and as representatives of the following class of
 19 persons and entities (the "Class"):

20 All persons and entities that purchased a Lithium Ion Battery or
 21 Lithium Ion Battery Product from any Defendant, or any division,
 22 subsidiary or affiliate thereof, or any co-conspirator in the United
 23 States during the Class Period, from January 1, 2000 through May
 24 31, 2011. Excluded from the Class are Defendants, their parent
 25 companies, subsidiaries and affiliates, any co-conspirators, federal
 governmental entities and instrumentalities of the federal
 government, states and their subdivisions, agencies and
 instrumentalities, and any judge or jurors assigned to this case.

26 200. While Plaintiffs do not know the exact number of the members of the Class,
 27 Plaintiffs believe there are at least thousands of members in the Class.

201. Common questions of law and fact exist as to all members of the Class. This is particularly true given the nature of Defendants' conspiracy, which was generally applicable to all members of the Class, thereby making appropriate relief with respect to the Class as a whole. Such common questions of law and fact include but are not limited to:

a. Whether Defendants and their co-conspirators combined and conspired among themselves to fix, raise, stabilize, or maintain the prices of Lithium Ion Batteries sold in the United States;

b. Whether Defendants and their co-conspirators combined and conspired to reduce output of Lithium Ion Batteries sold in the United States;

c. The identity of the participants of the alleged conspiracy;

d. The duration of the alleged conspiracy;

e. The acts carried out by Defendants and their co-conspirators in furtherance of the conspiracy;

f. Whether the alleged conspiracy violated the Sherman Act;

g. Whether the conduct of Defendants and their co-conspirators, as alleged in this Complaint, caused injury to the business or property of Plaintiffs and the members of the Class;

h. The effect of the alleged conspiracy on the prices of Lithium Ion Batteries and Lithium Ion Battery Products sold in the United States during the Class Period;

i. Whether Defendants and their co-conspirators concealed the conspiracy's existence from the Plaintiffs and the members of the Class;

j. The appropriate injunctive and related equitable relief for the Class; and

k. The appropriate class-wide measure of damages.

202. Plaintiffs' claims are typical of the claims of the members of the Class, and Plaintiffs will fairly and adequately protect the interests of the Class. Plaintiffs and all members of the Class are similarly affected by Defendants' wrongful conduct in that they paid inflated prices for Lithium Ion Batteries or Lithium Ion Battery Products purchased from Defendants, their divisions, subsidiaries or affiliates, or their co-conspirators.

203. Plaintiffs' claims arise out of the same common course of conduct giving rise to the claims of the other members of the Class. Plaintiffs' interests are coincident with, and not antagonistic to, those of the other members of the Class. Plaintiffs are represented by counsel who are competent and experienced in the prosecution of antitrust and class action litigation.

204. The questions of law and fact common to the members of the Class predominate over any questions affecting only individual members, including legal and factual issues relating to liability and damages.

205. Class action treatment is a superior method for the fair and efficient adjudication of the controversy—in that, among other things, such treatment will permit a large number of similarly situated persons to prosecute their common claims in a single forum simultaneously, efficiently and without the unnecessary duplication of evidence, effort, and expense that numerous individual actions would engender. The benefits of proceeding through the class mechanism, including providing injured persons or entities with a method for obtaining redress for claims that might not be practicable to pursue individually, substantially outweigh any difficulties that may arise in the management of this class action.

206. The prosecution of separate actions by individual members of the Class would create a risk of inconsistent or varying adjudications, establishing incompatible standards of conduct for Defendants.

VIII. ANTITRUST INJURY

207. Defendants' conspiracy had the following effects, among others:

a. Price competition has been restrained or eliminated with respect to Lithium Ion Batteries;

b. The prices of Lithium Ion Batteries have been fixed, raised, stabilized, or maintained at artificially inflated levels; and

c. Purchasers of Lithium Ion Batteries and Lithium Ion Battery Products have been deprived of free and open competition.

208. During the Class Period, Plaintiffs and the members of the Class paid supracompetitive prices for Lithium Ion Batteries and Lithium Ion Battery Products.

209. By reason of the alleged violations of the antitrust laws, Plaintiffs and the members of the Class have sustained injury to their businesses or property, having paid higher prices for Lithium Ion Batteries and Lithium Ion Battery Products than they would have paid in the absence of Defendants' illegal contract, combination, or conspiracy, and as a result have suffered damages. This is an antitrust injury of the type that the antitrust laws were meant to punish and prevent.

IX. ACTIVE CONCEALMENT

210. Plaintiffs and the members of the Class had no knowledge of the combination or conspiracy alleged in this Complaint, or of facts sufficient to place them on inquiry notice of their claims, until the public disclosures of the government investigations into Lithium Ion Battery price-fixing began in May 2011.

211. Prior to the public disclosure of government investigations beginning in May 2011, no information in the public domain or available to the Plaintiffs and the members of the Class suggested that any Defendant was involved in a criminal conspiracy to fix prices for Lithium Ion Batteries.

212. Because Defendants kept their conspiracy secret until at least May 2011, Plaintiffs and members of the Class did not know before then that they were paying supracompetitive prices for Lithium Ion Batteries and Lithium Ion Battery Products.

213. Defendants successfully concealed their conspiratorial conduct by, among other things: making false public statements suggesting that the market for Lithium Ion Batteries was competitive; directing their employees to destroy incriminating documents; undertaking to avoid creation of a paper documentation of collusive activity; and agreeing to withhold from purchasers potentially incriminating information.

214. During the relevant period, Defendants made numerous misleading public statements falsely portraying the market for Lithium Ion Batteries as a competitive one. For example:

a. In a February 2, 2004 presentation to investors entitled "2003 Business Results & 2004 Outlook," LG declared its "[a]im to enter Top-tier [of the rechargeable battery market] by '05 through expanding customer bases with product differentiation and preceding

1 R&D.” In a section of the presentation titled “Competition Status,” LG described the Lithium Ion
 2 Battery market as “aggressive,” with its competitors focused on “capacity expansion,” “intensive
 3 investment,” and a “[s]trategy to sustain [a] leading position.” At the time LG made these
 4 statements about the competitive state of the market it knew that they were false. LG was a
 5 member of the conspiracy and knew that the Lithium Ion Battery producers were not competing
 6 against each other aggressively but, rather, conspiring to avoid price competition.

7 b. Panasonic stated in its 2005 Annual Report that, “[a]mid intensifying
 8 global competition in the rechargeable battery market, the Company focuses management
 9 resources on lithium-ion batteries.” In 2007, the company stated that “Matsushita’s business is
 10 subject to intense price competition worldwide. . . .” Panasonic knew when it made these
 11 statements that they were false because Defendants, who accounted for the vast majority of
 12 Lithium Ion Batteries sold worldwide, had previously agreed not to compete on price.

13 c. In 2010, Panasonic stated that, “[w]e anticipate the harsh price competition
 14 with South Korean makers will continue. We are reviewing our production process to strengthen
 15 our cost competitiveness so that we can win the battle.” Similarly, a Sony spokesman stated in
 16 2010 that “Sony anticipates a difficult environment for the battery business because of competition
 17 and price declines.” By 2010, of course, these and other Japanese suppliers had agreed for more
 18 than a decade not to compete on price with Korean makers of Lithium Ion Batteries.

19 215. Defendants also undertook to conceal their actions by instructing employees to
 20 destroy incriminating documents. For example, an internal LG email dated February 26, 2004,
 21 that detailed a meeting that day between LG and Sony executives concerning Lithium Ion Battery
 22 pricing, stated “[p]lease discard after reading.” Similarly, an April 4, 2004 internal LG email
 23 relating price-fixing conversations among Defendants implored: “please make sure that you
 24 maintain internal and external security regarding the email, so that people other than the recipients
 25 on the list cannot access the email.”

26 216. Additional LG emails detailing conspiratorial conversations and meetings among
 27 Defendants contained explicit instructions to “delete . . . upon reading,” “[p]lease share this email
 28 only with people on the recipients list, and delete it immediately upon reading,” and “[p]lease

1 make sure that each related personnel takes a look at this mail and delete it.” Emails bearing such
2 instructions were transmitted on at least the following dates: May 11, 2007, August 1, 2007,
3 January 31, 2008, October 13, 2008, and October 14, 2008.

4 217. Defendants further concealed their conduct by avoiding the creation of a paper trail
5 in the first instance. A December 10, 2010 internal LG email regarding price fixing with “D
6 Company” stated, “when you have conversations with [D Company], never leave any written or
7 evidence [sic].” In a February 15, 2011 LG internal email chain also with regard to “D Company”
8 (believed to be Samsung), LG executive J.H. Lee explained that “it seems our communication
9 content is too direct.” Lee’s LG colleague responded: “Well understood. And I will be careful
10 about contact.”

11 218. In addition, Defendants jointly prohibited customer access to their Lithium Ion
12 Battery pricing formulas in order to conceal their price collusion and the pretextual nature of their
13 price increase justifications. At a February 27, 2008 restaurant meeting between LG and Sanyo,
14 LG emphasized that: “Regarding price increase, need to deliver a message again that the [pricing]
15 formula should not be opened to customers.” Sanyo responded “positively” to LG’s proposal to
16 prevent customers from accessing the formula behind the price increases. Sanyo also confirmed to
17 LG that “Sony does not open [its] pricing formula to customers.”

18 219. Similarly, at a January 27, 2008 meeting between LG and Sanyo at the Narita
19 Airport, Sanyo inquired as to whether LG “has an internal formula explained to customers at the
20 time of price increase.” LG then proposed that “each company’s confidential information, such as
21 costs, should not be opened to the customers.”

22 220. As alleged in Section VI.C. and elsewhere in this Complaint, Defendants took
23 other affirmative acts to conceal their wrongdoing, including offering pretextual justifications for
24 collusive price increases; arranging clandestine meetings and phone calls among themselves to
25 exchange pricing, production, and other competitive, non-public information; using personal email
26 accounts and coded messages when arranging meetings; and on at least one occasion meeting in a
27 private room at a restaurant so as not to be seen or heard by others.

28

221. Defendants' anticompetitive conspiracy, by its very nature, was self-concealing. Lithium Ion Batteries are not exempt from antitrust regulation, and thus, before May 2011, Plaintiffs reasonably considered it to be a competitive industry. Accordingly, a reasonable person under the circumstances would not have been alerted to begin to investigate the legitimacy of Defendants' Lithium Ion Battery prices before May 2011.

222. Plaintiffs exercised reasonable diligence. Plaintiffs and the members of the Class could not have discovered the alleged conspiracy at an earlier date by the exercise of reasonable diligence because of the deceptive practices and techniques of secrecy employed by Defendants and their co-conspirators to conceal their combination.

223. As a result of Defendants' concealment, the running of any statute of limitations has been tolled with respect to any claims that Plaintiffs and the members of the Class allege in this Complaint.

X. VIOLATION OF SECTION 1 OF THE SHERMAN ACT

224. Plaintiffs incorporate by reference the allegations in the preceding paragraphs.

225. Defendants and their co-conspirators entered into and engaged in a combination or conspiracy in unreasonable restraint of trade in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1.

226. Defendants' acts in furtherance of their combination or conspiracy were authorized, ordered, or done by their officers, agents, employees, or representatives while actively engaged in the management of Defendants' affairs.

227. At least as early as January 2000, and continuing until such time as the anticompetitive effects of Defendants' conduct ceased, the exact dates being unknown to Plaintiffs, Defendants and their co-conspirators entered into a continuing agreement, understanding and conspiracy in restraint of trade to fix, raise, stabilize, and maintain prices for Lithium Ion Batteries, thereby creating anticompetitive effects.

228. Defendants' anticompetitive acts involved United States domestic commerce and import commerce, and had a direct, substantial, and foreseeable effect on interstate commerce by raising and fixing prices for Lithium Ion Batteries throughout the United States.

229. The conspiratorial acts and combinations have caused unreasonable restraints in the market for Lithium Ion Batteries.

230. As a result of Defendants' unlawful conduct, Plaintiffs and the members of the Class have been harmed by being forced to pay inflated, supracompetitive prices for Lithium Ion Batteries and Lithium Ion Battery Products.

231. In formulating and carrying out the alleged agreement, understanding and conspiracy, Defendants and their co-conspirators did those things that they combined and conspired to do, including but not limited to the acts, practices, and course of conduct set forth in this Complaint.

232. Defendants' conspiracy had the following effects, among others:

a. Price competition in the market for Lithium Ion Batteries has been restrained, suppressed, and/or eliminated in the United States;

b. Prices for Lithium Ion Batteries sold by Defendants, their divisions, subsidiaries, and affiliates, and their co-conspirators have been fixed, raised, stabilized, and maintained at artificially high, non-competitive levels throughout the United States; and

c. Plaintiffs and members of the Class who purchased Lithium Ion Batteries or Lithium Ion Battery Products from Defendants, their divisions, subsidiaries, and affiliates, and their co-conspirators have been deprived of the benefits of free and open competition.

233. As a direct and proximate result of Defendants' anticompetitive conduct, Plaintiffs and members of the Class have been injured in their business or property and will continue to be injured in their business and property by paying more for Lithium Ion Batteries and Lithium Ion Battery Products than they would have paid and will pay in the absence of the conspiracy.

234. The alleged contract, combination, or conspiracy is a *per se* violation of the federal antitrust laws.

XI. REQUEST FOR RELIEF

WHEREFORE, Plaintiffs demand judgment against Defendants as follows:

A. The Court determine that this action may be maintained as a class action under Rule 23(a), (b)(2), and (b)(3) of the Federal Rules of Civil Procedure, appoint Plaintiffs as Class

1 Representatives and their counsel of record as Class Counsel, and direct that notice of this action,
2 as provided by Rule 23(c)(2) of the Federal Rules of Civil Procedure, be given to the Class;

3 B. The unlawful conduct, conspiracy or combination alleged herein be adjudged and
4 decreed:

5 a. An unreasonable restraint of trade or commerce in violation of Section 1 of
6 the Sherman Act; and

7 b. A *per se* violation of Section 1 of the Sherman Act;

8 C. Plaintiffs and the Class recover damages, to the maximum extent allowed under
9 federal antitrust laws, and that a joint and several judgment in favor of Plaintiffs and the members
10 of the Class be entered against Defendants in an amount to be trebled to the extent such laws
11 permit;

12 D. Defendants, their affiliates, successors, transferees, assignees and other officers,
13 directors, partners, agents and employees thereof, and all other persons acting or claiming to act on
14 their behalf or in concert with them, be permanently enjoined and restrained from in any manner
15 continuing, maintaining or renewing the conduct, conspiracy, or combination alleged herein, or
16 from entering into any other conspiracy or combination having a similar purpose or effect, and
17 from adopting or following any practice, plan, program, or device having a similar purpose or
18 effect;

19 E. Plaintiffs and the members of the Class be awarded pre- and post- judgment interest
20 as provided by law, and that such interest be awarded at the highest legal rate from and after the
21 date of service of this Complaint;

22 F. Plaintiffs and the members of the Class recover their costs of suit, including
23 reasonable attorneys' fees, as provided by law; and

24 G. Plaintiffs and the members of the Class have such other and further relief as the
25 case may require and the Court may deem just and proper.

26
27
28

JURY TRIAL DEMANDED

Plaintiffs demand a trial by jury, pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, of all issues so triable.

Dated: July 2, 2013

Respectfully submitted,

/s/ Bruce L. Simon

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